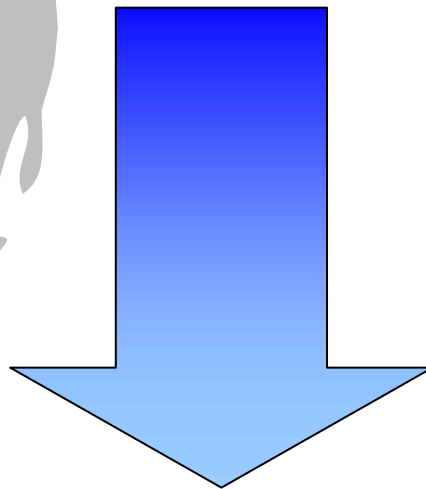
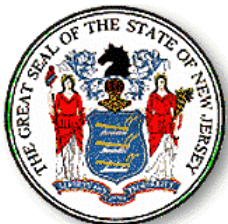


Fatal Occupational Injuries in New Jersey



1993-2002



Division of Epidemiology, Environmental and Occupational Health
Occupational Health Surveillance Program



Richard J. Codey
Acting Governor

Fred M. Jacobs, M.D., J.D.
Commissioner

FATAL OCCUPATIONAL INJURIES in NEW JERSEY
TEN-YEAR REPORT
1993 – 2002

NEW JERSEY DEPARTMENT OF HEALTH AND SENIOR SERVICES

In Cooperation With the
UNITED STATES DEPARTMENT OF LABOR
BUREAU OF LABOR STATISTICS
CENSUS OF FATAL OCCUPATIONAL INJURIES

February 2005

Occupational Health Surveillance Program

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FOREWORD

Injuries incurred while working are a continuing cause of death and injury of healthy individuals, and a significant public health problem. During the ten years described in this report, more than two workers lost their lives each week in New Jersey. Many more were seriously injured, some with life-long disabilities.

The Occupational Health Surveillance Program (OHSP) of the New Jersey Department of Health and Senior Services (NJDHSS) has conducted surveillance of work-related fatal injuries since 1983. Tracking fatal work-related injuries is important in order to learn about the number of fatal injuries and their circumstances, and to be able to devise prevention strategies. In 1991, the OHSP entered into cooperative agreements with federal agencies under the Census of Fatal Occupational Injuries and Fatality Assessment and Control Evaluation projects. These projects track fatal injuries in the workplace through active surveillance and data collection.

The Census of Fatal Occupational Injuries (CFOI) project is a cooperative effort between federal and state governments. The objective of CFOI is to collect detailed information on every occupational injury fatality that occurs in all 50 states and U.S. territories. The project was initiated by the U.S. Department of Labor, Bureau of Labor Statistics (BLS), and New Jersey data were first collected for the year 1991. The first national census was published by the BLS with 1992 data. The impetus for the CFOI project was the lack of a true count of occupational injury fatalities. Estimates of the number of fatal injuries varied widely due to different reporting sources and definitions.

The BLS and the states provide matching funds for the CFOI project. The states actively collect, verify, code, computerize, and transmit to BLS detailed information on work-related fatal injuries. Coding is done according to BLS protocol. Identifier information such as workers' names, employers' names, and company names are not sent to BLS. In this publication, totals of some categories may not be the same as those published by the BLS for New Jersey. Differences may be due to grouping of data or due to the OHSP learning about fatal injuries after the close of the year's data collection by the BLS.

The Internet address for the Bureau of Labor Statistics, Census of Fatal Occupational Injuries, is www.bls.gov/iif/oshfat1.htm.

The Fatality Assessment and Control Evaluation (FACE) project is funded by the National Institute for Occupational Safety and Health (NIOSH), part of the Centers for Disease Control and Prevention. Activities conducted under this project include surveillance of fatal work-related injuries, on-site investigations of selected types of work-related fatalities, and development and dissemination of educational materials. FACE reports, with no identifiers, include a description of the fatal incidents and recommendations for prevention of similar injuries. The reports are distributed to the employer, labor unions, and safety professionals. They are also posted on the NJDHSS Web site, www.state.nj.us/health/eoh/survweb/face.htm. The Internet address for the NIOSH FACE program is www.cdc.gov/niosh/face/faceweb.html.

INTRODUCTION

During the years 1993 to 2002, 1,160 workers died in New Jersey of injuries incurred while working. The majority of workers' deaths were due to transportation-related events, especially those occurring on public roadways. This was the most frequent cause of fatal injuries for the United States as well. Falls to lower levels and homicides were the next most common causes of fatal injuries. This report summarizes the information gained from multiple sources and focuses on the three most common causes of injury, as well as selected topics about fatal occupational injuries in New Jersey.

DATA SPECIFICATIONS

The following individuals are included:

- ◆ Private and public sector employees
- ◆ Self-employed persons
- ◆ Certain volunteers (e.g., firefighters, law enforcement officers, emergency medical service workers)
- ◆ Persons traveling on the job, but not commuting to or from work

All fatal work-related injuries that occurred in New Jersey from 1993 to 2002 were included in this report, including those caused by homicides, suicides, and motor vehicle incidents. Only deaths due to an injury are included; deaths due to an occupational illness are not included. *A death is considered work-related if the event leading to the fatal injury occurred while the employee was working, either on or off the employer's premises, in a legal activity.* Fatal occupational injuries are classified according to the Bureau of Labor Statistics' protocol. The coding systems used are listed in footnotes to the tables in this report.

An occupational injury is defined as a wound or other condition caused by external forces or caused by a specific event or series of events within a single work day. Work-related injuries listed as

an underlying or contributory cause on death certificates or medical examiners' reports are included. An example of this is a death that was caused by pneumonia after the worker was hospitalized with injuries that occurred at work.

SOURCES OF INFORMATION

The work-relationship of each fatality is confirmed by at least two sources. Sources and documents used for confirmation are newspaper articles and other media reports, medical examiner reports, police reports, death certificates, New Jersey Fatality Assessment and Control Evaluation (FACE) reports, and other state and federal agency reports. A follow-back questionnaire is sent to employers or other knowledgeable persons, when necessary, to gather additional information.



- Total number of fatal occupational injuries: 1,160
- An average of more than 2 fatal injuries occurred each week
- 94% were men and 6% were women
- 26% were foreign-born
- 15% were Hispanic or Latino
- 65% were white, non-Hispanic
- 15% were black, non-Hispanic
- 86% were residents of New Jersey
- 90% were employed by New Jersey businesses
- All 21 counties experienced occupational fatalities
- Age at death ranged from 15 to 89, and average age was 43 years; 58% were younger than 45 years of age
- 1,008 worked for wages or salary; 115 were self-employed
- 1,018 worked in the private sector; 142 were public employees
- The majority of fatal injuries occurred in the industries of construction (254, 22%) and transportation and public utilities (252, 22%)
- The highest number of fatal injuries occurred in the occupations of transportation and material moving (241, 21%), handlers, equipment cleaners, helpers and laborers (206, 18%), and construction trades (152, 13%)
- The most common events/exposures included transportation incidents (423, 36%), assaults and violent acts (220, 19%), and falls (181, 16%)
- A total of 26,619 potential years of work life (the total number of years before age 65 of all the victims) was lost, an average of 25 years per fatality
- Thirty-seven percent worked for establishments with one to ten employees; 21% worked for establishments with more than 100 employees

**Highlights
1993-2002**

NEW JERSEY: INCIDENCE, EMPLOYMENT, AND RATES OF FATAL WORK-RELATED INJURIES

In the ten-year period from 1993 to 2002, 1,160 occupational injury fatalities occurred in New Jersey. The fatal injuries ranged from a low of 100 in 1996 to a high of 147 in 1993. **Table 1** shows the number of fatal injuries, number of workers employed, and rates of fatal injuries for each year.

TABLE 1

YEAR	NUMBER OF FATAL INJURIES*	NUMBER EMPLOYED**	RATE PER 100,000 WORKERS***
1993	147	3,722,648	3.8
1994	114	3,781,371	2.9
1995	118	3,857,731	3.0
1996	100	3,939,210	2.5
1997	101	4,049,424	2.5
1998	103	4,029,444	2.5
1999	104	4,098,684	2.6
2000	115	4,128,025	2.9
2001	129	4,116,084	3.1
2002	129	4,099,092	3.1

* Numbers of fatal injuries include those added after the close of data collection by the Bureau of Labor Statistics. Totals may differ from those published by the BLS.

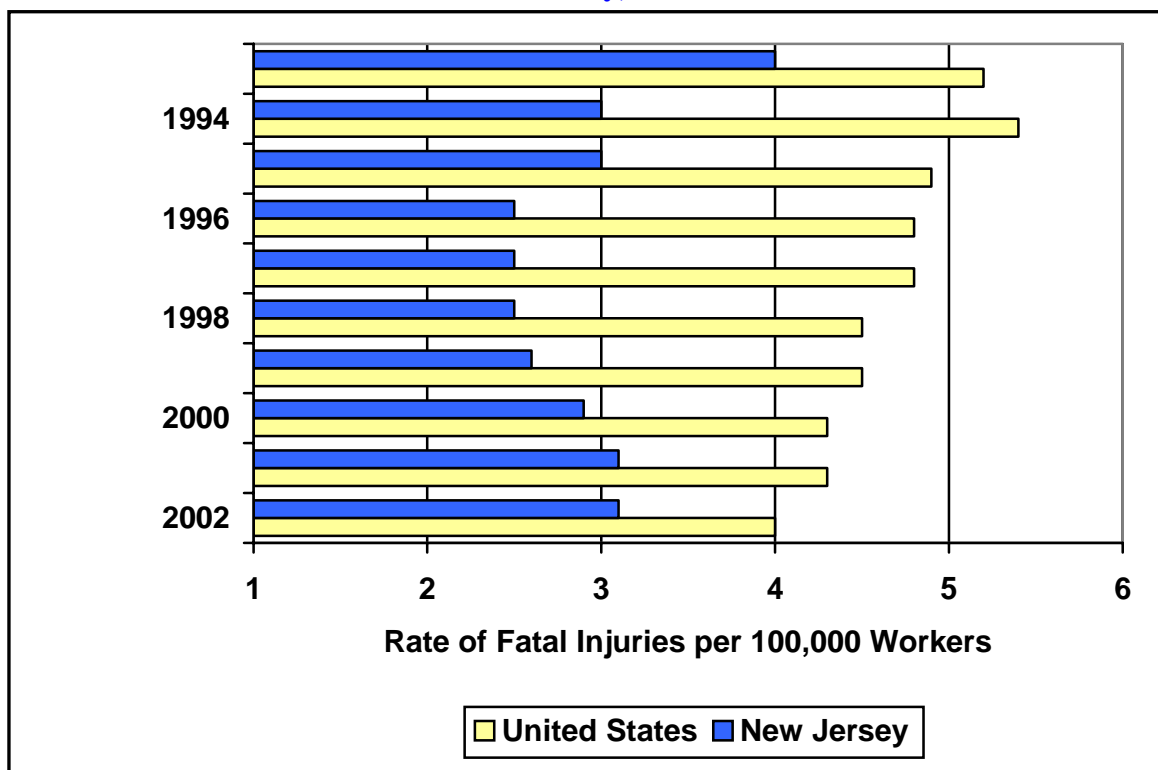
** Source: U.S. Department of Labor, Bureau of Labor Statistics. The annual number employed for 1993 to 1999 have been adjusted to incorporate revised intercensal population controls for the 1990s.

*** Includes the self-employed, family workers, and private household workers; excludes military personnel. NJ rates for 1993, 1994, and 1995 were calculated by the Occupational Health Service; all other rates were calculated by the Bureau of Labor Statistics (BLS).

FATALITY RATES: UNITED STATES AND NEW JERSEY

New Jersey has a fatal occupational injury rate lower than the United States as a whole.

FIGURE 1
Rates of Fatal Occupational Injuries per 100,000 Workers*
United States and New Jersey, All Industries 1993 - 2002



*New Jersey rates for 1993, 1994, and 1995 were calculated by the Occupational Health Service; all other rates were calculated by the Bureau of Labor Statistics (BLS).

Rates are based on the number of fatal injuries originally reported by BLS for each year and include workers 16-years of age and older, the self-employed, family workers, and private household workers. Military personnel are excluded. Rates are considered experimental.

DEMOGRAPHIC CHARACTERISTICS

Table 2 shows the employer, employment status, gender, race, and age of the 1,160 victims of fatal work-related injuries in New Jersey during the years 1993 to 2002. Eighty-seven percent of the victims worked for wages and salaries. Twelve percent were government employees. Most of the victims were male (94%). The workers' ages ranged from 15 to 89, with 58% younger than 45 years of age.

TABLE 2
Fatal Occupational Injuries by Demographic Characteristics
New Jersey, 1993 - 2002

CHARACTERISTIC	NUMBER	PERCENT of TOTAL
TOTAL	1,160*	100
Employer		
Private	1,018	88
Government	142	12
Employment Status		
Wage and Salary Workers	1,008	87
Self-employed**	115	10
Armed Forces	14	1
Volunteers	15	1
Family Business	5	>1
Other and unknown	3	>1
Gender		
Men	1,087	94
Women	73	6
Race		
White, non-Hispanic	759	65
Black, non-Hispanic	169	15
Asian or Pacific Islander	48	4
Other or Unknown	8	1
Hispanic or Latino	176	15
Age		
15 to 24 years	111	10
25 to 34 years	249	21
35 to 44 years	316	27
45 to 54 years	253	22
55 to 64 years	155	13
65 to 74 years	57	5
75 to 89 years	19	2
*Number of fatal injuries includes those added after the close of data collection by the Bureau of Labor Statistics (BLS). Total may differ from those published by the BLS.		
**Includes paid and unpaid workers, and may include owners of incorporated businesses, or members of partnerships.		
Note: Percentages may not add to 100 due to rounding.		

SELECTED CHARACTERISTICS

TABLE 3
Selected Characteristics of Fatal Occupational Injuries
by Race, Ethnicity, and Foreign Birth
New Jersey, 1993 - 2002
N = 1,160

	WHITE, NON-HISPANIC	BLACK, NON-HISPANIC	ASIAN	HISPANIC	FOREIGN-BORN
Number (%)	759 (65%)	169 (15%)	48 (4%)	176 (15%)	302 (26%)
Industry*	Construction 23% Transportation & Public Utilities 20% Services 14%	Transportation & Public Utilities 34% Construction 17% Services 15%	Retail Trade 46% Services 19% Transportation & Public Utilities 15%	Construction 27% Transportation & Public Utilities 20% Manufacturing 11%	Construction 27% Transportation & Public Utilities 21% Retail Trade 18%
Occupation	Transportation & Material Moving 20% Construction Trades 15% Handlers, Equipment Cleaners, Helpers, & Laborers 13%	Transportation & Material Moving 27% Handlers, Equipment Cleaners, Helpers, & Laborers 25% Construction Trades 8%	Sales 21% Transportation & Material Moving 19% Executive, Administrative, & Managerial 17%	Handlers, Equipment Cleaners, Helpers, & Laborers 29% Transportation & Material Moving 17% Construction Trades 13%	Handlers, Equipment Cleaners, Helpers, & Laborers 28% Transportation & Material Moving 20% Construction Trades 13%
Event or Exposure	Transportation 40% Falls 15% Homicide 11%	Transportation 35% Homicide 19% Contact with Objects, Equip. 15%	Homicide 56% Transportation 19% Contact with Objects, Equip. 10%	Transportation 31% Falls 23% Homicide 15%	Transportation 26% Homicide 24% Falls 22%
Foreign-born**	13%	18%	100%	68%	100%

Note: A worker may be included in more than one category. For example, a worker may have been Hispanic, and foreign-born.

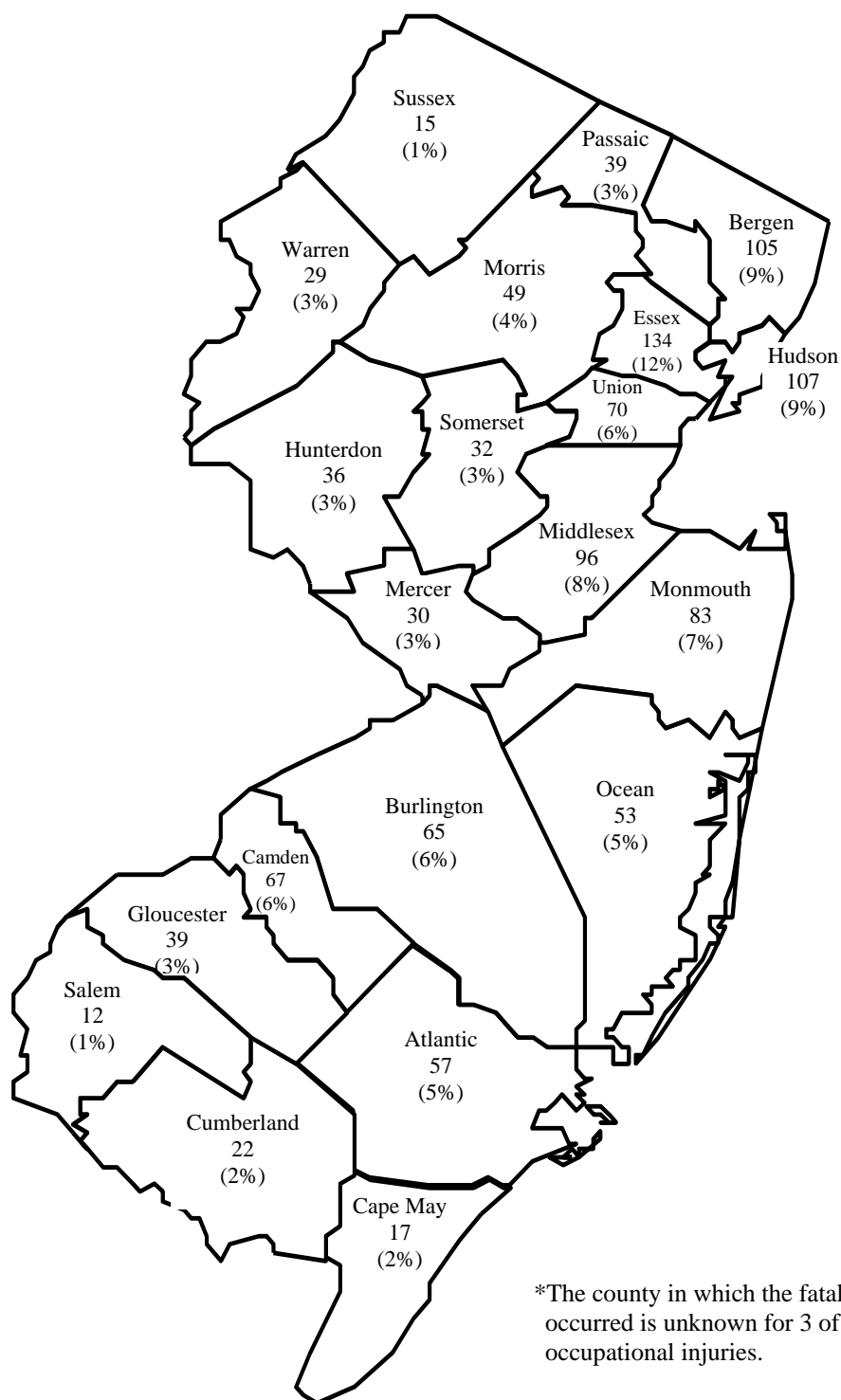
*Industry by Standard Industrial Classification (SIC), includes workers employed by governmental organizations regardless of industry.

**A worker was foreign-born if born in a country other than the U.S. and U.S. territories.

Fatal Occupational Injuries by County

New Jersey, 1993-2002

N=1,160*

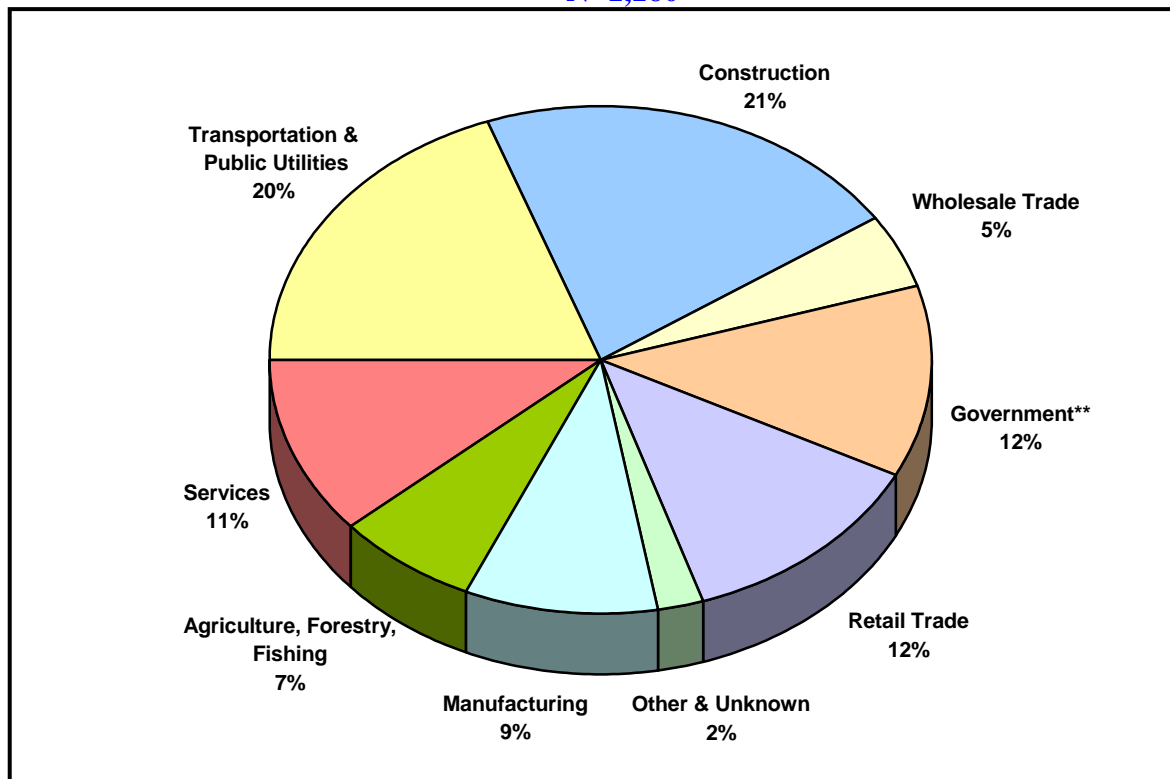


Note: Percentages may not add to 100 due to rounding.

INDUSTRY

The highest number of fatal injuries occurred in the industries of construction (244) and transportation and public utilities (227).

FIGURE 2
Fatal Occupational Injuries by Industry*
New Jersey, 1993 - 2002
N=1,160



*Based on the 1987 Standard Industrial Classification (SIC) Manual.

**Includes fatalities of workers employed by governmental organizations regardless of industry: transportation and public utilities (25), services (24), and construction (10).
Note: Percentages may not add to 100 due to rounding.

OCCUPATION

TABLE 4
Fatal Occupational Injuries by Occupation*
New Jersey, 1993 - 2002
N=1,160

OCCUPATION*	NUMBER**	PERCENT
Operators, Fabricators, and Laborers	494	43
Transportation and material moving	241	
<i>Truck drivers</i>	<i>126</i>	
<i>Taxicab drivers and chauffeurs</i>	<i>32</i>	
Handlers, equipment cleaners, helpers, & laborers	206	
<i>Construction laborers</i>	<i>78</i>	
<i>Non-construction laborers</i>	<i>61</i>	
<i>Garbage collectors</i>	<i>22</i>	
Machine operators and tenders	37	
Fabricators, assemblers, and handworking	9	
Precision Production, Craft, and Repair	241	21
Construction trades	152	
<i>Carpenters and apprentices</i>	<i>19</i>	
<i>Electricians, apprentices, and supervisors</i>	<i>16</i>	
Mechanics and repairers	66	
Precision production occupations	22	
Service Occupations	125	11
Protective service	75	
Service occupations, except protective and household	47	
Technical, Sales, and Administrative Support	108	9
Sales occupations	67	
Technicians and related support occupations	22	
Administrative support, including clerical	19	
Managerial and Professional Specialty	99	9
Executive, administrative, and managerial	61	
Professional specialty	38	
Farming, Forestry, and Fishing	82	7
Related agricultural occupations	36	
Fishers, hunters, trappers	17	
Farm operators and managers	14	
Military Occupations	10	<1
Unknown	1	<1
<p>*Based on the 1990 Occupational Classification System developed by the Bureau of the Census. **Subcategories may not total major categories. Not all subcategories are shown. Note: Percentages may not add to 100 due to rounding.</p>		

EVENT OR EXPOSURE (Manner in which the fatal injury occurred)

The event or exposure describes the manner in which the injury was produced or inflicted by the source of the injury. Transportation-related events caused 36% of the fatal injuries, followed by roadway events (17%) and homicides (15%).

TABLE 5
Fatal Occupational Injuries by Event or Exposure*
New Jersey, 1993 - 2002
N=1,160

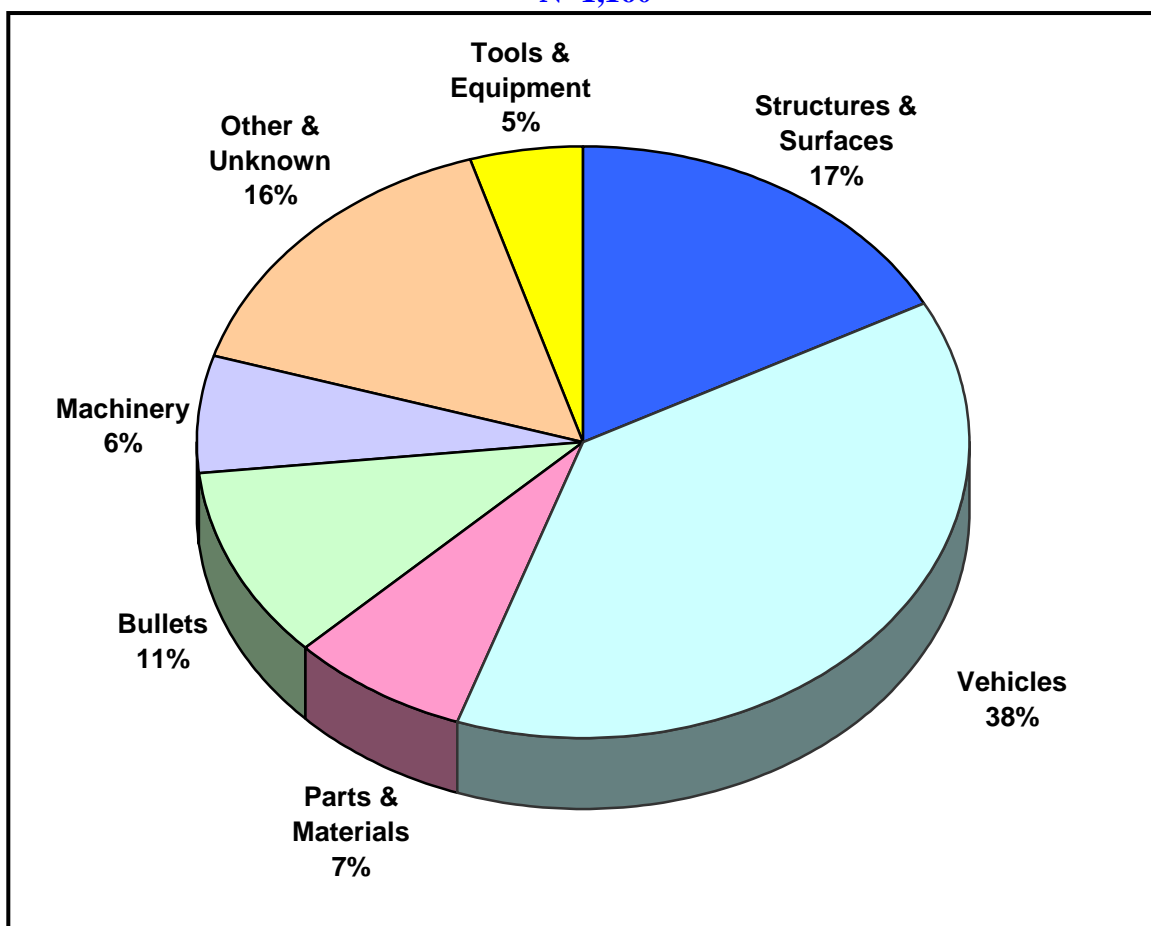
EVENT OR EXPOSURE*	NUMBER**	PERCENT
Transportation Incidents	423	36
Roadway Accidents	195	
Collision between vehicles	105	
Vehicle struck stationary object or equipment in road or side of road	62	
Non-collision	24	
Non-roadway	44	
Non-collision	28	
Vehicle, mobile equipment struck stationary object	9	
Collision with vehicle	5	
Worker struck by vehicle	124	
In parking lot or non-road area	53	
In roadway	56	
On side of the road	15	
Water vehicle accident	26	
Aircraft accident	24	
Railway accident	10	
Assaults and Violent Acts	220	19
Homicide	175	
Self-inflicted injury	40	
Falls	181	16
Fall to lower level	175	
From a ladder	44	
From a roof	42	
Contact with Objects and Equipment	167	14
Struck by object	88	
<i>Struck by falling object</i>	51	
Caught in or compressed by equipment or objects	60	
Exposure to Harmful Substances or Environments	120	10
Contact with electric current	56	
Exposure to caustic, noxious, or allergenic substances	34	
Fires and Explosions	47	4
Other and Unknown	2	<1
*Based on the 1992 BLS Occupational Injury and Illness Classification Structures.		
**Subcategories may not total major categories. Not all subcategories are shown.		
Note: Percentages may not add to 100 due to rounding.		

SOURCE OF INJURY

The sources (objects, substances, exposures, or bodily motions that directly produced the injury) of the 1,160 fatal injuries are shown in **Figure 3**. The vehicle was the most common source of injury. In a transportation-related fatal injury, the source is the vehicle in which the decedent was an occupant. If a pedestrian was fatally injured, the source is the vehicle that struck the decedent. In a fall, the source is the surface or object to which the decedent fell.

Thirty-eight percent of all work-related fatal injuries involved vehicles (A vehicle may be the source in transportation or non-transportation incidents). The vehicles included 336 roadway vehicles, with 187 trucks (including 76 tractor-trailers), 98 autos, and 41 vans. Other vehicles included 36 industrial vehicles, 25 aircraft, 26 watercraft, and 16 rail vehicles.

FIGURE 3
Fatal Occupational Injuries by Source of Injury*
New Jersey, 1993 - 2002
N=1,160



* Based on the 1992 BLS Occupational Injury and Illness Classification Structures.

WORKER ACTIVITY

Table 6 shows the activity of the worker at the time of occurrence for the 1,160 fatal injuries. The most common activities were vehicular and transportation operations (33%), including driving or operating a vehicle; and constructing, repairing, or cleaning (25%).

TABLE 6
Fatal Occupational Injuries by Worker Activity*
New Jersey, 1993 - 2002
N=1,160

WORKER ACTIVITY*	NUMBER**	PERCENT
Vehicular and Transportation Operations	380	33
Driving or operating	245	
Truck	103	
Automobile	60	
Industrial or construction vehicle	28	
Aircraft	13	
Riding in or on a vehicle	58	
Walking in or near a roadway	31	
Flagging, directing traffic	13	
Constructing, Repairing, Cleaning	291	25
Construction, assembling, dismantling	135	
Repair, maintenance	78	
Inspecting, checking	26	
Using, Operating Tools and Machinery	95	8
Logging, trimming, pruning	24	
Operating machinery	20	
Operating heavy equipment	16	
Material Handling Operations	80	7
Loading, unloading, packing, unpacking	32	
Physical Activities	69	6
Protective Services	53	5
Apprehending, breaking up a fight, chasing	16	
Firefighting	11	
Other Activities	136	12
Tending a retail establishment	74	
Activity Unspecified or Unknown	56	5
*Based on activity codes developed by the U.S. Department of Labor, Bureau of Labor Statistics.		
**Subcategories may not total major categories. Not all subcategories are shown.		
Note: Percentages may not add to 100 due to rounding.		

WORKER LOCATION

Table 7 shows the location of the 1,160 workers at the time of their injury. Most of the workers were injured while working on streets or highways (26%), or at industrial places (21%). One hundred and sixty-three workers (14%) were fatally injured at construction sites that included general construction, residential construction, and road construction.

TABLE 7
Fatal Occupational Injuries by Location of the Worker*
New Jersey, 1993 - 2002
N=1,160

WORKER LOCATION*	NUMBER**	PERCENT
Street or Highway, Except Road Construction Sites	300	26
Local road or street	169	
Interstate, freeway, expressway	67	
Multiple access roads	57	
Unspecified	7	
Industrial Places and Premises, Except Construction Sites	249	21
Factory, plant	46	
Warehouse	41	
Industrial yard	30	
Construction Sites***	163	14
Public Building	162	14
Stores, including convenience stores	68	
Restaurants	32	
Office buildings	23	
Home, Except Construction Sites	93	8
Farms	24	2
Place for Recreation or Sport	14	1
Residential Institutions	10	1
Other Places Including Unknown	145	13
Parking lots, garages	54	
Ocean	30	
River or lake	10	
*Based on location codes developed by the U.S. Department of Labor, Bureau of Labor Statistics.		
**Subcategories may not total major categories. Not all subcategories are shown.		
***Construction sites include residential, road, and general construction sites.		

Section 2

SELECTED CATEGORIES

Comparison of Men and Women



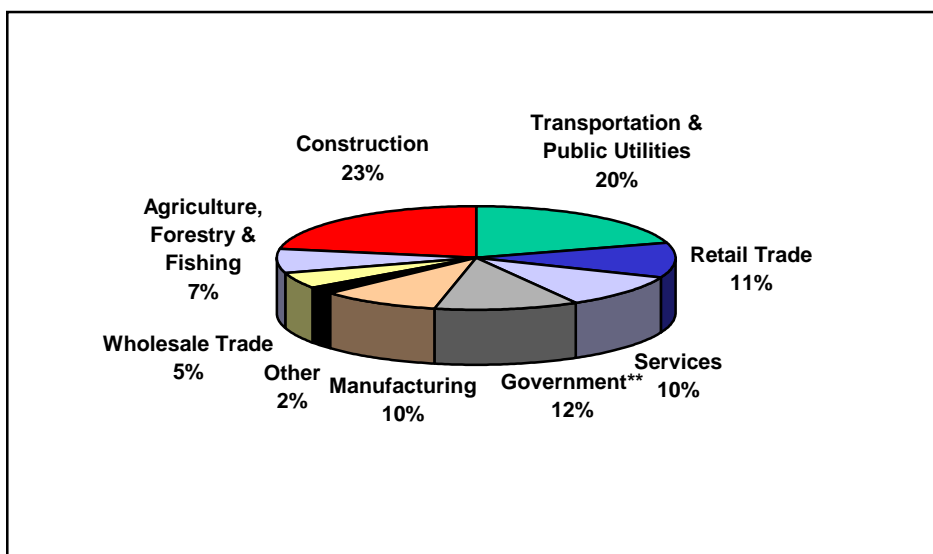
New Jersey
1993-2002

COMPARISON OF MEN AND WOMEN

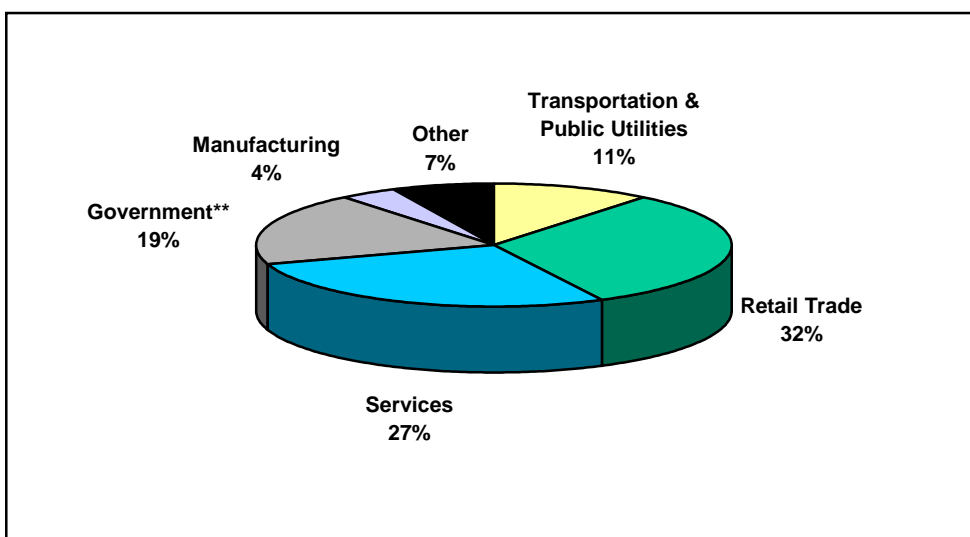
Ninety-four percent of the victims of work-related fatal injuries were men. The majority of male decedents were employed in the construction industry. The majority of female decedents were employed in the retail trade industry.

FIGURE 4
Comparison of Fatal Occupational Injuries of Men and Women by Industry*
New Jersey, 1993 – 2002

MEN
n=1,087



WOMEN
n=73

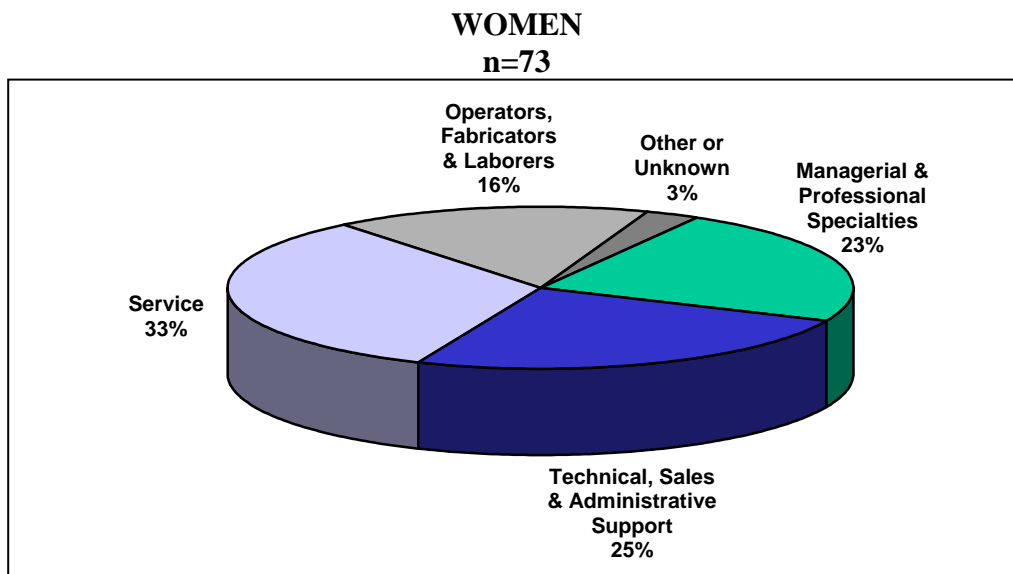
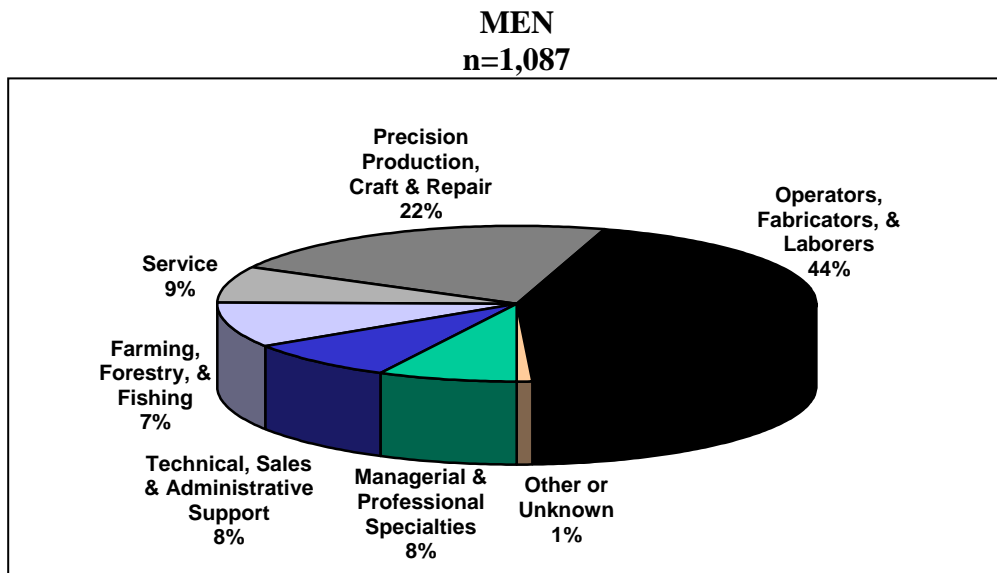


*Based on the 1987 Standard Industrial Classification (SIC) Manual.

**Includes fatalities of workers employed by governmental organizations regardless of industry.

Note: Percentages may not add to 100 due to rounding.

FIGURE 5
Comparison of Fatal Occupational Injuries of Men and Women by Occupation*
New Jersey, 1993 – 2002

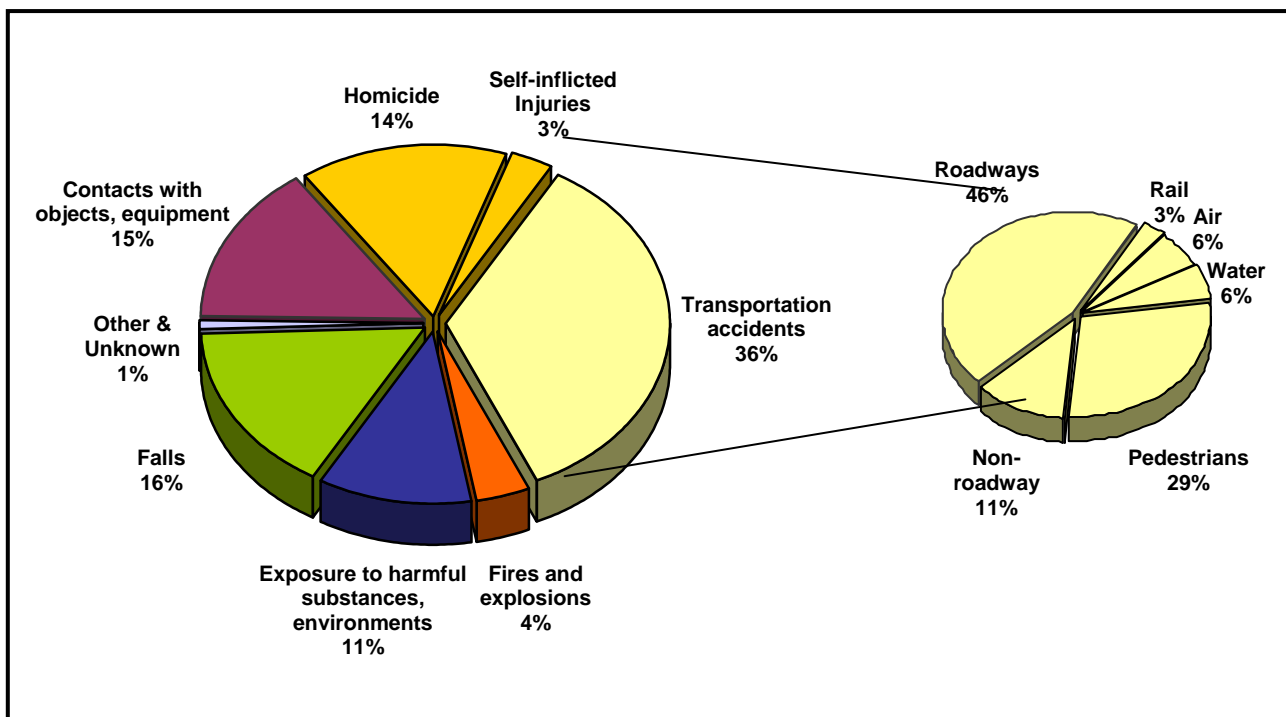


*Based on the 1990 Occupational Classification Structure developed by the Bureau of the Census.

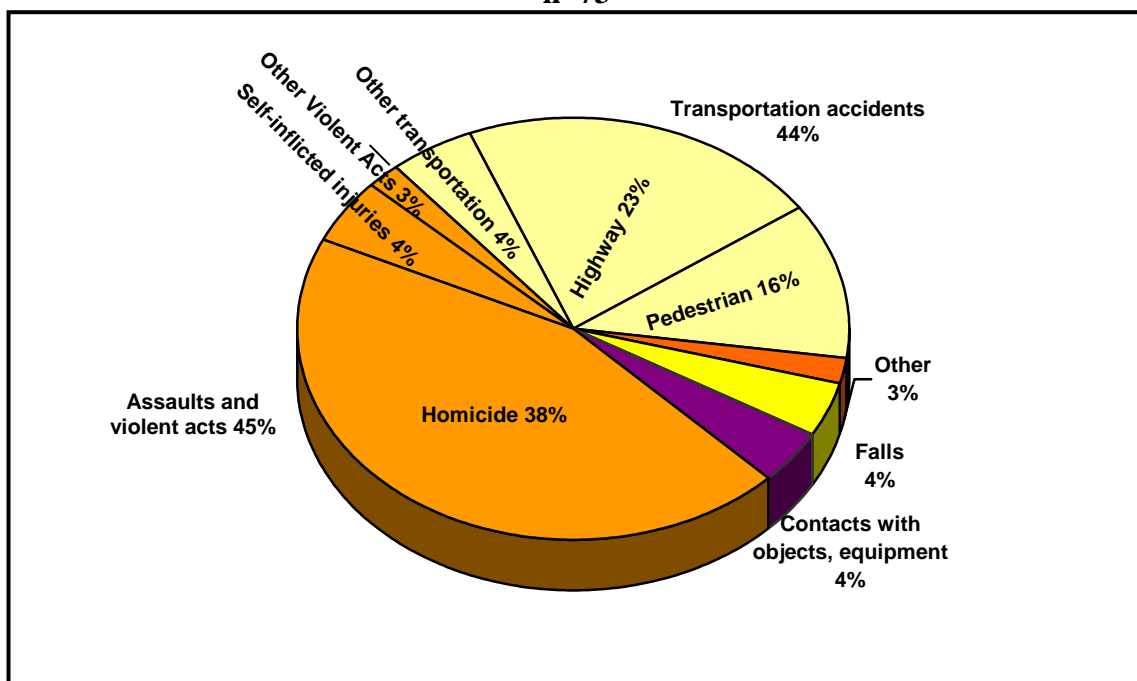
Note: Percentages may not add to 100 due to rounding.

FIGURE 6
Comparison of Fatal Occupational Injuries of Men and Women
by Event/Exposure* (Manner in Which the Fatal Injury Occurred)
New Jersey, 1993 - 2002

MEN
n=1,087



WOMEN
n=73



*Based on the 1992 BLS Occupational Injury and Illness Classification Structure.
 Note: Percentages may not add to 100 due to rounding.

Section 2

SELECTED CATEGORIES

Construction Industry



New Jersey
1993 - 2002



Construction Industry Fatalities

1993-2002

Total number of construction industry fatalities: 254

253 were men

68% were white, non-Hispanic and 11% were black, non-Hispanic

19% were Hispanic or Latino

32% were foreign-born

92% were residents of New Jersey

93% were employed by New Jersey businesses

Age at death ranged from 17 to 80, average age was 42 years; 62% were younger than 45 years of age

87% worked for wages or salary; 12% were self-employed

96% worked in the private sector; 4% were public employees

The most common type of fatal event was a fall to a lower level (116, 46%)

The majority of decedents were employed by special trade contractors (153, 60%)

57% of the decedents worked for employers with 10 or fewer employees

Highest number of victims were employed in the occupation of precision production, craft and repairs (145, 57%); of these, 131 (52%) were in construction trades

60% were constructing, repairing, or cleaning and 13% were involved in vehicular and transportation operations

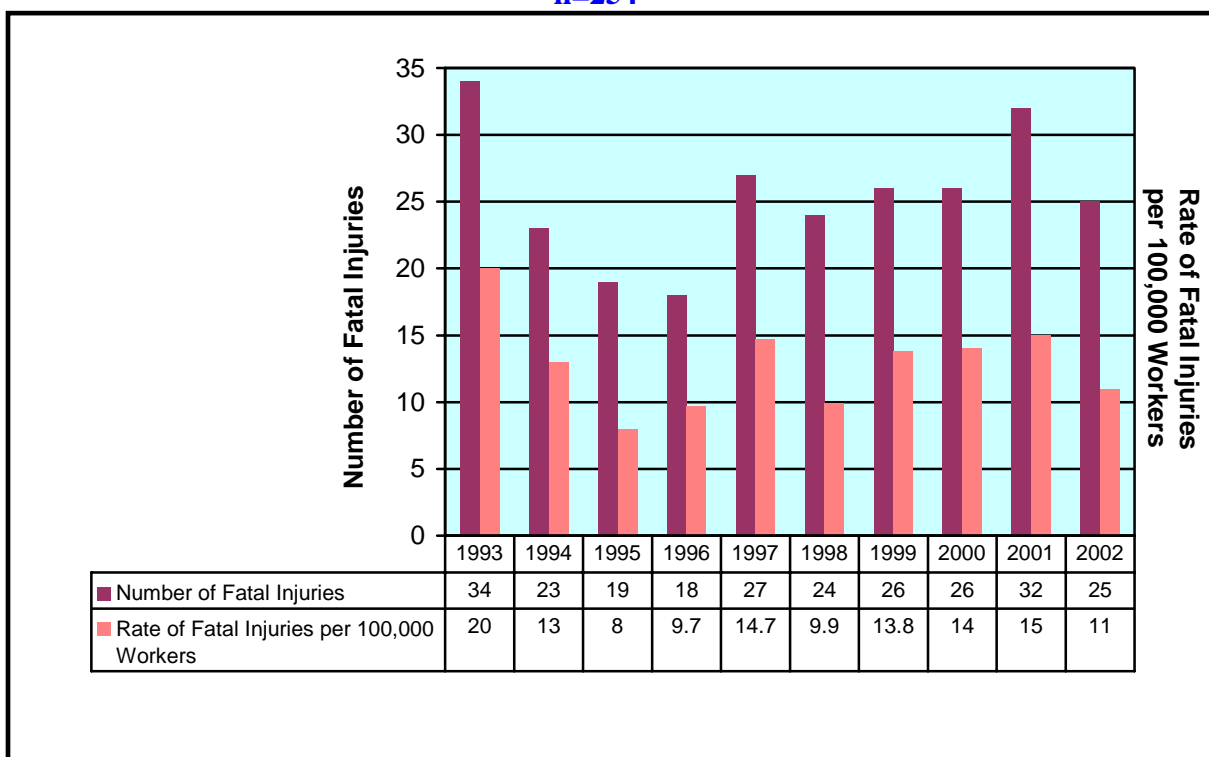
At least one construction industry fatality occurred in each county. The counties in which the highest number occurred were Middlesex (32), Essex (30), and Hudson (26) Counties

89% of construction industry fatalities occurred between 7 a.m. and 5 p.m. with a peak between 11 a.m. and noon

CONSTRUCTION INDUSTRY

Figure 7 demonstrates the annual incidence and rates of construction industry fatalities. The construction industry employed 254 of the victims of fatal work-related injuries, 22% of all fatal injuries. The annual incidence ranged from 18 in 1996 to 34 in 1993. Annual rates of fatal injuries in the construction industry have consistently been higher than most other industries in New Jersey. Rates ranged from a low of 8 in 1995 to a high of 20 in 1993.

FIGURE 7
Fatal Occupational Injuries by Year of Incident* - Construction Industry
New Jersey, 1993 - 2002
n=254



*Based on the 1987 Standard Industrial Classification (SIC) Manual. Includes fatalities of 10 workers employed by governmental organizations working in the construction industry.

Note: The Occupational Health Service calculated rates for years 1993 to 1995. The Bureau of Labor Statistics calculated rates for years 1996 to 2002

CONSTRUCTION INDUSTRY – Major Industry Groups

The majority of fatal injuries in the construction industry occurred in the major industry group of special trade contractors.

FIGURE 8
Fatal Occupational Injuries by Major Industry Groups* - Construction Industry
New Jersey, 1993 - 2002
n=254

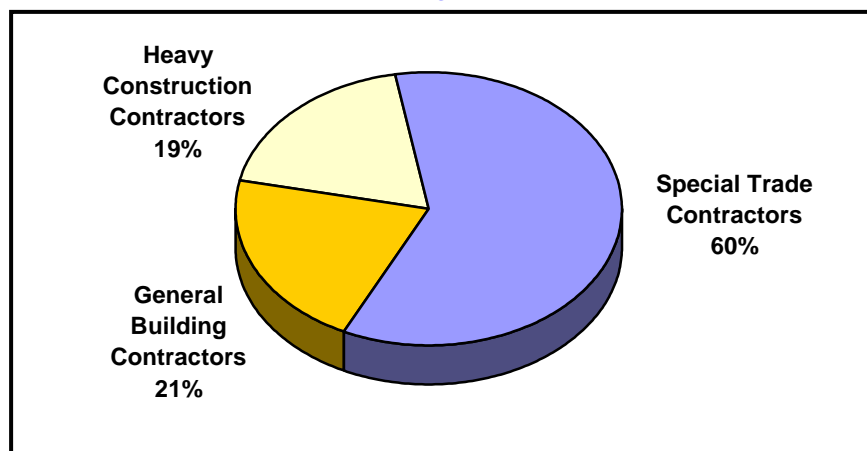


TABLE 8
Fatal Occupational Injuries by Major Industry Groups* - Construction Industry
New Jersey, 1993- 2002
n=254

MAJOR INDUSTRY GROUP*	NUMBER**	PERCENT
Special Trade Contractors	153	60
Roofing, siding, sheet metal	36	
Structural steel erection	20	
Plumbing, heating, air conditioning	17	
Electrical contractors	14	
Carpentry and floor work	10	
Painting and paper hanging	9	
Wrecking and demolition	8	
Excavation work	5	
General Building Contractors	54	21
Residential building construction	35	
<i>Single-family housing construction</i>	28	
Non-residential building construction	18	
Heavy Construction	47	19
Highway and street construction	27	
Heavy construction except highway	20	
<i>Water, sewer, and utility lines</i>	11	
*Based on the 1987 Standard Industrial Classification (SIC) Manual. Includes fatalities of 10 workers employed by governmental organizations working in the construction industry. **Subcategories may not total major categories. Not all subcategories are shown.		

CONSTRUCTION INDUSTRY – Occupation

More than half (57%) of the victims of fatal work-related injuries in the construction industry had occupations in one of the construction trades.

TABLE 9
Fatal Occupational Injuries by Occupation* - Construction Industry
New Jersey, 1993 - 2002
n=254

OCCUPATION*	NUMBER**	PERCENT
Precision Production, Craft and Repair	145	57
Construction trades	131	
<i>Carpenters, including apprentices and supervisors</i>	22	
<i>Structural metal workers</i>	19	
<i>Roofers</i>	16	
<i>Electricians, apprentices, and elect. power installers</i>	12	
<i>Painters</i>	10	
<i>Masons and supervisors</i>	8	
<i>Plumbers, pipe fitters, including supervisors</i>	7	
Mechanics and repairers	11	
<i>Heating and air conditioning</i>	5	
Operators, Fabricators, and Laborers	102	40
Handlers, equipment cleaners, helpers and laborers	79	
<i>Construction laborers</i>	77	
Transportation and material moving	19	
<i>Truck drivers</i>	7	
<i>Operating engineers</i>	4	
<i>Excavating and loading machine operators</i>	4	
Welders	4	
Managerial and Professional Specialties	5	2
Other	2	1
*Based on the 1990 Occupational Classification Structure developed by the Bureau of the Census.		
**Subcategories may not total major categories. Not all subcategories are shown.		

CONSTRUCTION INDUSTRY – Event or Exposure (Manner in Which the Fatal Injury Occurred)

Forty-six percent of the construction industry workers died as a result of a fall to a lower level, most frequently from a movable ladder or roof. Fatal falls from roofs were most frequently from roof edges.

TABLE 10
Fatal Occupational Injuries by Event or Exposure* - Construction Industry
New Jersey, 1993 – 2002
n=254

EVENT OR EXPOSURE*	NUMBER**	PERCENT
Falls to Lower Levels	116	46
From ladders	33	
From roof	33	
<i>From roof edge</i>	<i>15</i>	
<i>Through roof surface</i>	<i>7</i>	
<i>Through skylights</i>	<i>5</i>	
<i>Through roof openings</i>	<i>3</i>	
From floor, dock, or ground opening	13	
From building girders or structural steel	11	
From scaffolding	11	
Other falls	15	
Transportation-Related Events	40	16
Roadway	11	
Non-roadway	6	
Worker struck by vehicle	23	
Contact with Objects and Equipment	49	19
Struck by object	27	
Excavation or trenching cave-in	9	
Exposure to Harmful Substances or Environments	34	13
Electric current	24	
Exposure to environmental heat	4	
Fires or Explosions	8	3
Assaults and Violent Acts	7	3
Self-inflicted injuries	5	
*Based on the 1992 BLS Occupational Injury and Illness Classification Structure.		
**Subcategories may not total major categories. Not all subcategories are shown.		

CONSTRUCTION INDUSTRY – Falls

TABLE 11
Fatal Occupational Falls in the Construction Industry by Secondary Source and Source*
New Jersey, 1993 - 2002
n = 116

THE WORKER FELL **FROM**:

SECONDARY SOURCE*	NUMBER**	PERCENT
Structures and Surfaces	65	56
Floors, walkways, ground surfaces	9	
<i>Floors</i>	9	
Other structural elements	42	
<i>Roof and roof trusses</i>	30	
<i>Skylights</i>	5	
Structures	14	
<i>Scaffolds, staging</i>	11	
Tools, Instruments, Equipment	33	28
Ladders	33	
Machinery	8	7
Elevators	6	
Parts and Materials	6	5
Vehicles	3	3
Other	1	1

THE WORKER FELL **TO**:

SOURCE*	NUMBER**	PERCENT
Structures and Surfaces	111	96
Floors, walkways, ground surfaces	108	
<i>Floors</i>	51	
<i>Floor of building</i>	39	
Ground	32	
Sidewalks, paths, outdoor walkways	16	
Street or road	5	
Other Sources	5	4
*Based on the 1992 BLS Occupational Injury and Illness Classification Structure. **Subcategories may not total major categories. Not all subcategories are shown.		

Section 2

SELECTED CATEGORIES

Public Employees



New Jersey
1993 - 2002

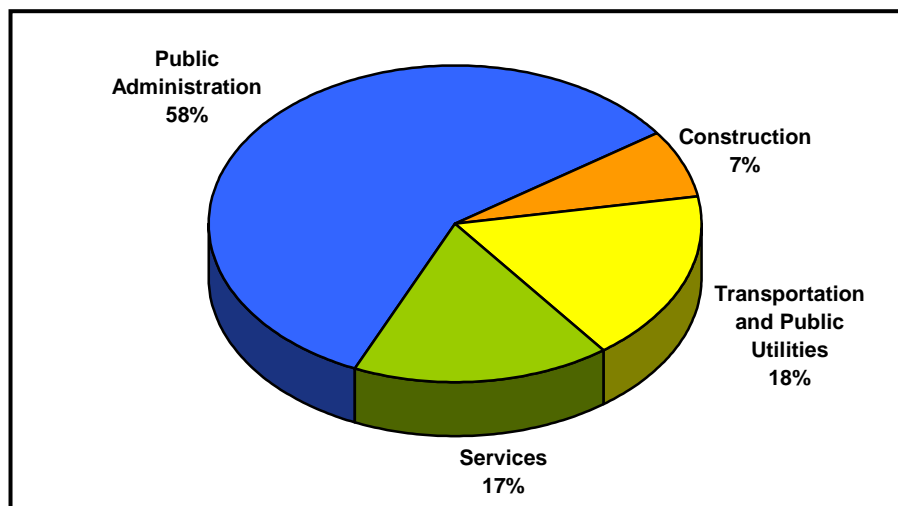
PUBLIC EMPLOYEES – Demographic Characteristics

Table 12 shows the employer, employment status, gender, race, and age of the 142 victims of fatal work-related injuries in New Jersey, during the years from 1993 to 2002, who were public employees. Public employees were 12% of those fatally injured.

TABLE 12
Fatal Occupational Injuries of Public Employees* by
Selected Demographic Characteristics
New Jersey, 1993 - 2002
n=142

CHARACTERISTIC	NUMBER**	PERCENT
TOTAL	142	100
Employer		
County or local government	82	58
Federal government	33	23
State government	27	19
Employment Status		
Wage and salary workers	116	82
Active Duty, Armed Forces	14	10
Volunteers	11	8
Gender		
Men	128	90
Women	14	10
Race		
White, non-Hispanic	111	78
Black, non-Hispanic	19	13
Hispanic or Latino	12	9
Age		
20 to 24 years	15	11
25 to 34 years	30	21
35 to 44 years	36	25
45 to 54 years	30	21
55 to 64 years	19	13
65 years and older	12	8
*Includes fatalities of workers employed by governmental organizations regardless of industry.		
**Subcategories may not total major categories. Not all subcategories are shown.		
Note: Percentages may not add to 100 due to rounding.		

FIGURE 9
Fatal Occupational Injuries of Public Employees by Industry*
New Jersey, 1993 - 2002
n=142



*Based on the 1987 Standard Industrial Classification (SIC) Manual.

TABLE 13
Fatal Occupational Injuries of Public Employees by Industry*
New Jersey, 1993 - 2002
n=142

INDUSTRY*	NUMBER**	PERCENT
Public Administration	83	58
Justice, public order, and safety	53	
<i>Police protection</i>	29	
<i>Fire protection</i>	15	
<i>Correctional institutions</i>	6	
National security and international affairs	12	
Executive, legislative, and general	8	
<i>Executive and legislative combined</i>	7	
Administration of economic programs	4	
Services	24	17
Educational services	11	
Engineering services	6	
Transportation and Public Utilities	25	18
Construction	10	7
*Based on the 1987 Standard Industrial Classification (SIC) Manual.		
**Subcategories may not total major categories. Not all subcategories are shown		

PUBLIC EMPLOYEES – Occupation

Forty percent of the public employees who died from occupational injuries had protective service occupational titles.

TABLE 14
Fatal Occupational Injuries of Public Employees by Occupation*
New Jersey, 1993 - 2002
n=142

OCCUPATION*	NUMBER**	PERCENT
Service Occupations	67	47
Protective service occupations	57	
<i>Police and police supervisors</i>	27	
<i>Firefighters and supervisors</i>	13	
<i>Crossing guards</i>	10	
<i>Corrections officers</i>	5	
Service occupations except protective and household	10	
<i>Janitors and cleaners</i>	6	
Operators, Fabricators, and Laborers	26	18
Transportation and material moving	14	
Handlers, equipment cleaners, helpers, and laborers	11	
<i>Laborers, construction and non-construction</i>	6	
<i>Garbage collectors</i>	5	
Managerial and Professional Specialties	13	9
Executive, administrative, and managerial	7	
Professional specialty	6	
Precision, Production, Crafts, and Repair	14	10
Construction trades	6	
Mechanics and repairers	5	
Technical, Sales, and Administrative Support	11	8
Administrative support	6	
Technicians and related support	5	
Military Occupations	10	7
Other	1	1
*Based on the 1990 Occupational Classification System developed by the Bureau of the Census		
**Subcategories may not total major categories. Not all subcategories are shown.		

PUBLIC EMPLOYEES – Event or Exposure (Manner in Which the Fatal Injury Occurred)

More than half of the public employees died due to transportation-related events. Twenty percent were homicide victims.

TABLE 15
Fatal Occupational Injuries of Public Employees by Event or Exposure*
New Jersey, 1993 - 2002
n=142

EVENT OR EXPOSURE*	NUMBER**	PERCENT
Transportation Incidents	72	51
Roadway accidents	31	
<i>Collision between vehicles</i>	15	
<i>Vehicle struck stationary object in road or side of road</i>	10	
<i>Noncollision</i>	5	
Worker struck by vehicle	28	
<i>In roadway</i>	20	
<i>On side of road</i>	4	
<i>In parking lot or non-road area</i>	4	
Aircraft accident	9	
Railway accident	3	
Assaults and Violent Acts	35	25
Homicide	29	
Suicide	6	
Contact with Objects and Equipment	9	6
Struck by object	6	
Caught in or compressed by equipment or objects	3	
Falls	8	6
Exposure to Harmful Substances and Environments	9	6
Contact with electric current	6	
Fires and Explosions	9	6
*Based on the 1992 BLS Occupational Injury and Illness Classification Structure.		
**Subcategories may not total major categories. Not all subcategories are shown.		

PUBLIC EMPLOYEES – Selected Characteristics

TABLE 16
Fatal Occupational Injuries of Public Employees by Selected Characteristics*
Roadway Incidents and Homicides
New Jersey, 1993 - 2002
n=142

CHARACTERISTIC*	NUMBER**	PERCENT
Roadway Incidents	31	22
Worker was an occupant of:		
<i>Truck or van</i>	<i>14</i>	
<i>Auto</i>	<i>11</i>	
Vehicle in collision with vehicle	<i>15</i>	
Collided with:		
<i>Truck or van</i>	<i>9</i>	
<i>Auto</i>	<i>6</i>	
Struck stationary object	<i>10</i>	
<i>Tree</i>	<i>4</i>	
<i>Structure</i>	<i>4</i>	
Worker was:		
Driving or operating a vehicle:	<i>20</i>	
<i>Auto</i>	<i>8</i>	
<i>Truck</i>	<i>7</i>	
Riding in a vehicle	<i>10</i>	
Pedestrians – road and off-road	28	20
Worker was struck by:		
<i>Auto</i>	<i>13</i>	
<i>Truck or van</i>	<i>12</i>	
Homicides	29	20
Manner of fatal assault:		
<i>Shooting</i>	<i>22</i>	
<i>Other</i>	<i>7</i>	
Location of fatal assault:		
<i>Local road</i>	<i>8</i>	
<i>Public building</i>	<i>6</i>	
<i>Jail or prison</i>	<i>4</i>	
<i>Home</i>	<i>6</i>	
<i>Other</i>	<i>5</i>	
Worker activity		
Protective service activity:	<i>19</i>	
<i>Apprehending, breaking up a</i>		
<i>fight, or chasing</i>	<i>11</i>	
Other, unknown	<i>10</i>	
*Based on the 1992 BLS Occupational Injury and Illness Classification Structure. **Subcategories may not total major categories. Not all subcategories are shown. Note: Percentages may not add to 100 due to rounding.		

Section 2

SELECTED CATEGORIES

Workers Age 55 Years or Older



New Jersey
1993 - 2002

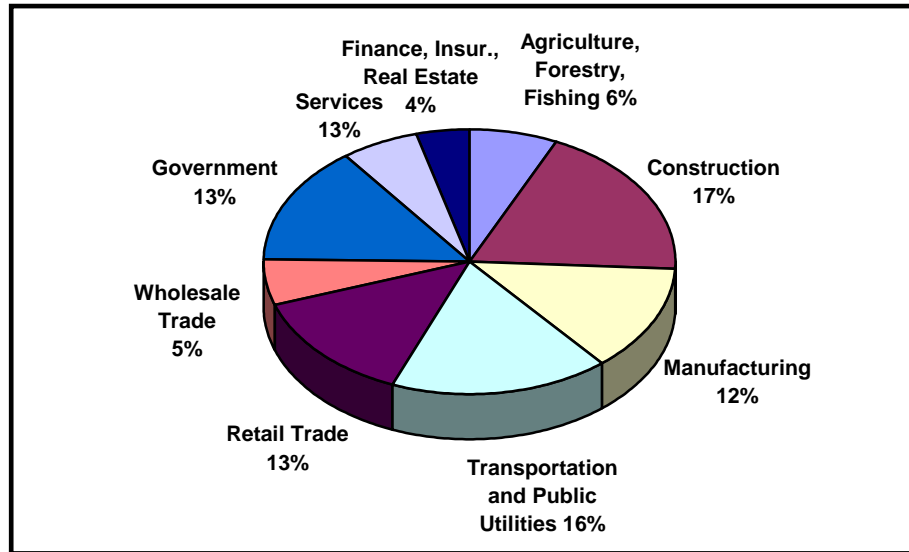
AGE 55 OR OLDER – Demographic Characteristics

Table 17 shows private and public employers, employment status, gender, race, and age of the 231 victims of fatal work-related injuries in New Jersey who were age 55 years or older. This age group comprises 20% of the 1,160 victims of fatal occupational injuries.

TABLE 17
Fatal Occupational Injuries of Workers Age 55 or Older
by Selected Demographic Characteristics
New Jersey, 1993 - 2002
n=231

CHARACTERISTIC	NUMBER	PERCENT
TOTAL	231	100
Employer		
Private	200	87
Public	31	13
Employment Status		
Wage and salary workers	180	78
Self-employed*	43	19
Volunteer	7	3
Gender		
Men	216	94
Women	15	6
Race		
White, non-Hispanic	172	74
Black, non-Hispanic	32	14
Asian	7	3
Unknown, non-Hispanic	1	<1
Hispanic or Latino	19	8
Foreign-born	43	19
Age		
55 to 64 years	155	67
65 to 74 years	57	25
75 to 89 years	19	8
*Includes paid and unpaid workers, and may include owners of incorporated businesses, or members of partnerships.		

FIGURE 10
Fatal Occupational Injuries of Workers Age 55 or Older by Industry*
New Jersey, 1993 - 2002
n=231



*Based on the 1987 Standard Industrial Classification (SIC) Manual.
Note: Percentages may not add to 100 due to rounding.

TABLE 18
Fatal Occupational Injuries of Workers Age 55 or Older by Occupation
New Jersey, 1993 - 2002
n=231

OCCUPATION*	NUMBER**	PERCENT
Operators, Fabricators, and Laborers	83	36
Transportation and material moving	42	
Handlers, equipment cleaners, helpers, laborers	31	
Construction and non construction laborers	19	
Precision Production, Craft, and Repair	46	20
Construction trades	30	
Mechanics and repairers	14	
Technical, Sales, and Administrative Support	32	14
Sales occupations	23	
Service Occupations	34	15
Protective service	17	
Service occupations, except protective and household	15	
Managerial and Professional Specialty	19	8
Executive, administrative, and managerial	10	
Professional specialties	9	
Farming, Forestry, and Fishing	17	7

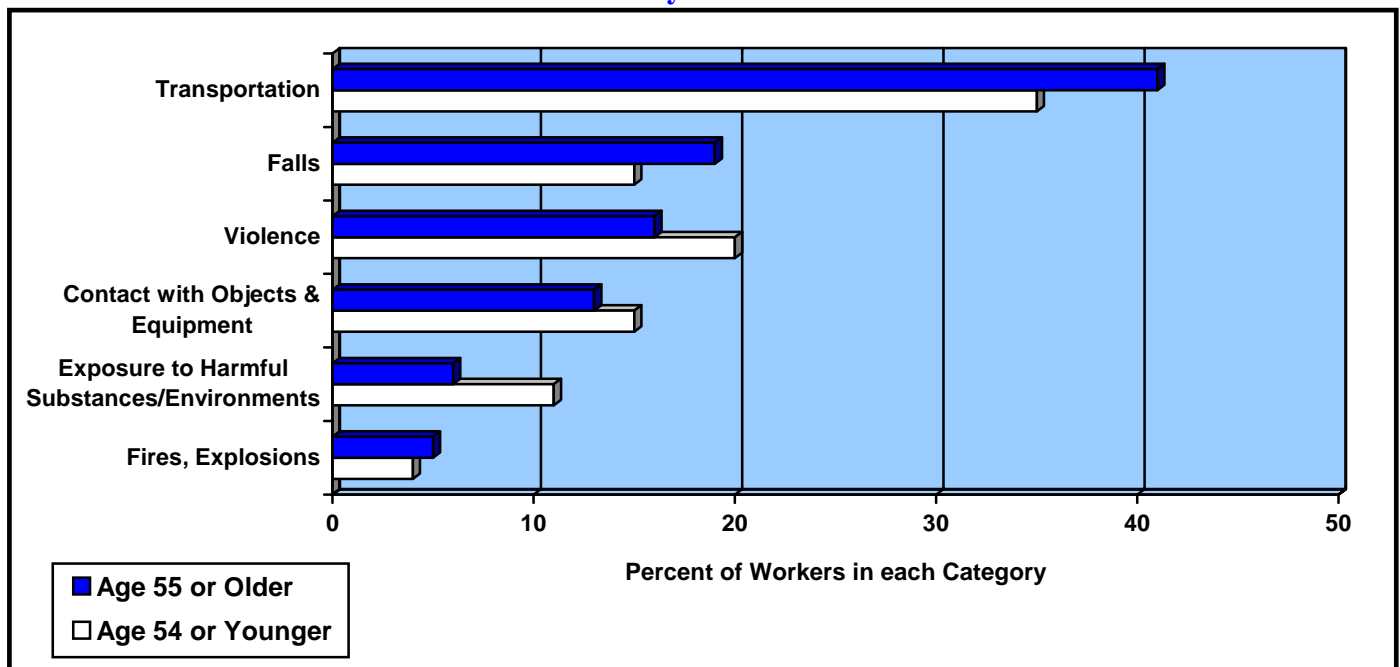
*Based on the 1990 Occupational Classification System developed by the Bureau of the Census.

**Subcategories may not total major categories. Not all subcategories are shown.

AGE 55 OR OLDER – Event or Exposure (Manner in Which the Fatal Injury Occurred)

Forty-one percent of workers age 55 years or older died as a result of transportation incidents, compared with 35% of workers age 54 years or younger. Seventeen percent were pedestrians who were struck by vehicles, compared with 9% of younger workers. Nineteen percent died of injuries sustained in falls, compared with 15% of younger workers. However, fewer older workers were homicide victims (12% compared with 16%), and fewer died as a result of exposures to harmful substances or environments (6% compared with 11%).

FIGURE 11
Comparison of Fatal Occupational Injuries of Workers Age 55 or Older (n=231)
and Workers Age 54 or Younger (n=929)
by Event or Exposure*
New Jersey 1993 - 2002



*Based on the 1992 BLS Occupational Injury and Illness Classification Structures.

Section 3

MOST FREQUENT FATAL OCCUPATIONAL INJURIES

New Jersey
1993 - 2002

All Transportation
... page 39

Roadway Fatalities
... page 41

Homicides
... page 56

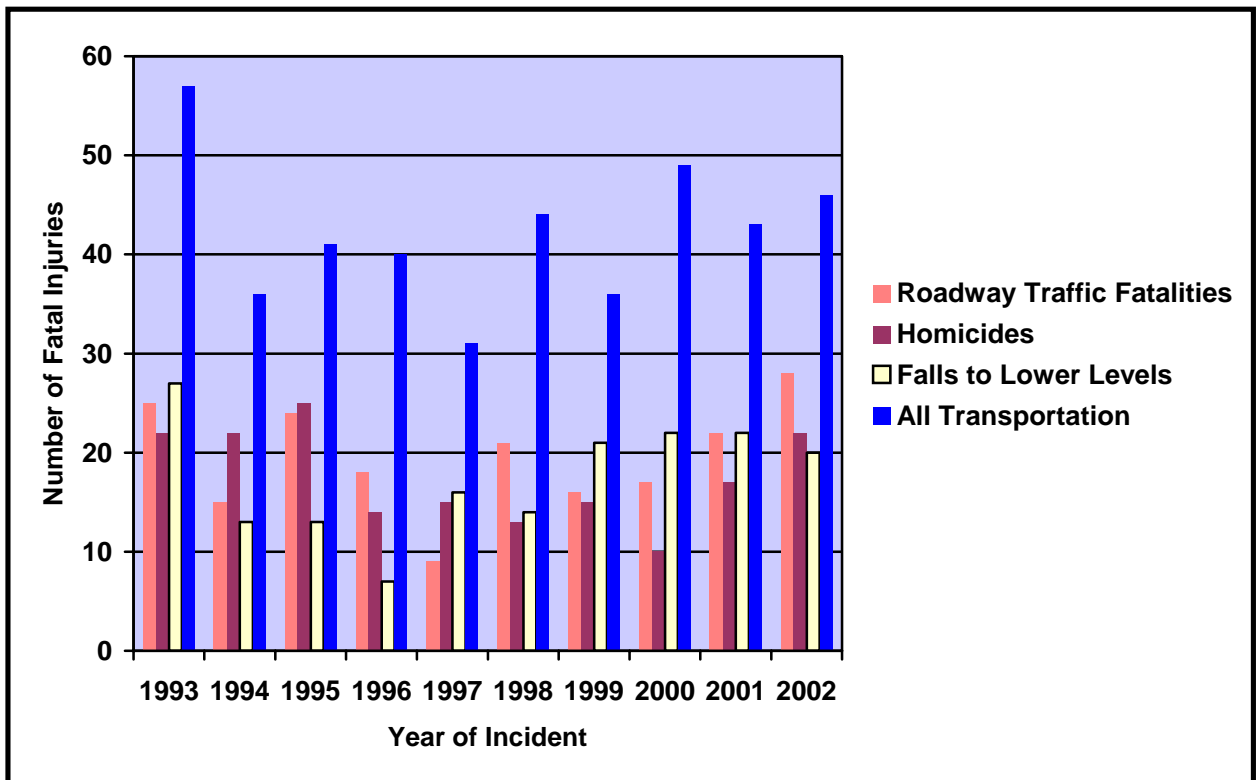
Falls to Lower Levels
... page 64



MOST FREQUENT CAUSES OF FATAL OCCUPATIONAL INJURIES

The three most frequent causes of fatal injuries that occurred from 1993 to 2002 were transportation-related events (primarily on roadways), falls to lower levels, and homicides.

FIGURE 12
Yearly Incidence of Causes of Fatal Occupational Injuries: All Transportation,
Roadway Traffic Fatalities, Falls to Lower Levels, and Homicides
New Jersey, 1993 - 2002
N=1,160



Section 3

MOST FREQUENT FATAL OCCUPATIONAL INJURIES

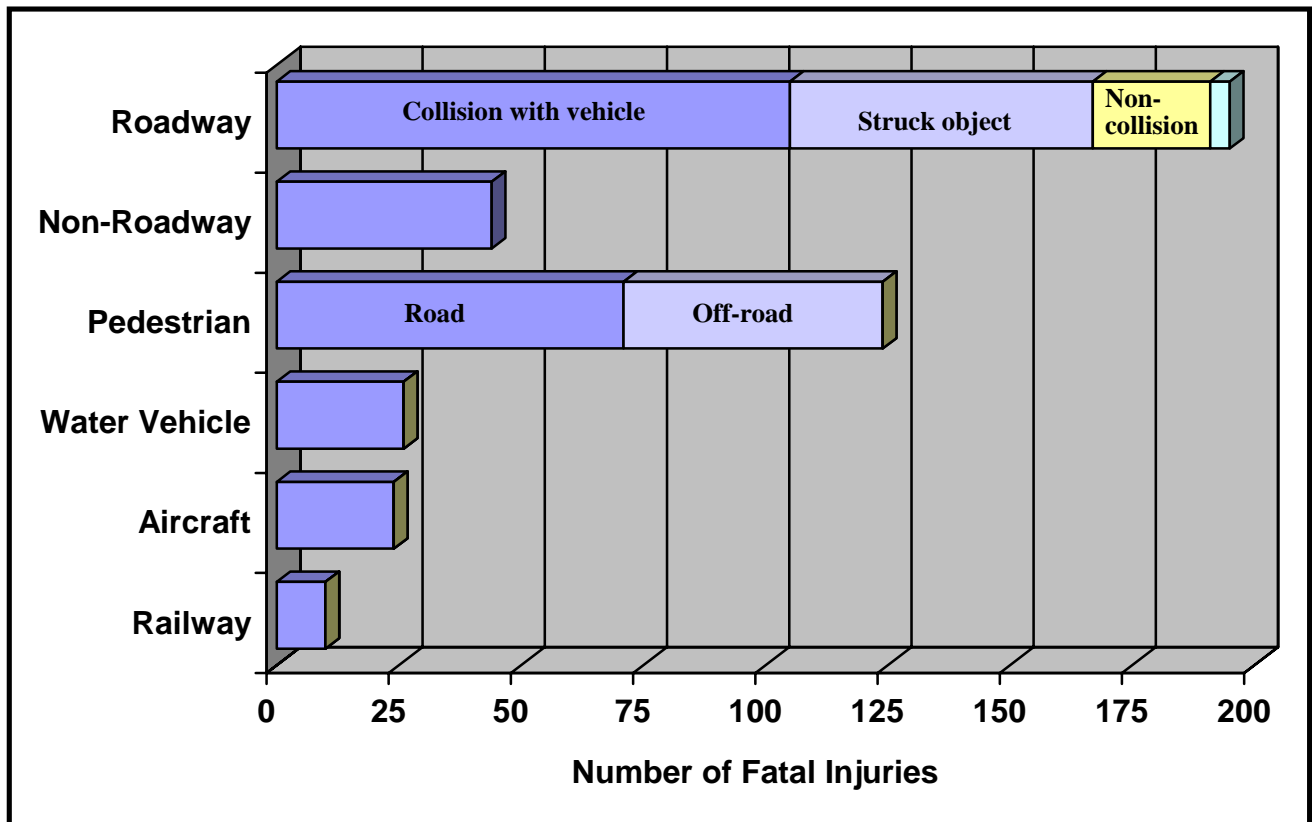
All Transportation



New Jersey
1993 - 2002

All Transportation

Transportation-related incidents were the leading cause of work-related fatalities in New Jersey and the United States through the ten years of data collection. Transportation events were responsible for 36% (423) of the 1,160 deaths of workers in the state. Watercraft incidents caused 26 deaths, aircraft crashes caused 24, and railway events caused 10 fatalities. Roadway motor vehicle events caused 17% (195) of the fatal injuries and non-roadway traffic events caused 4% (44) of the deaths. One hundred and twenty-four workers died when struck by a motor vehicle, 71 of them either on the road or at the side of the road.



Based on the 1992 Occupational Injury and Illness Classification Structures.

Note: Not all subcategories are shown.

The next section of this report will look at the most frequently occurring types of transportation-related fatal injuries: those occurring on roads and those resulting in deaths of pedestrians. Roadway incidents take place on roads or at the sides of roads. Non-roadway incidents occur in areas not considered streets or highways, such as parking lots, construction sites, or railroads.

Section 3

MOST FREQUENT FATAL OCCUPATIONAL INJURIES

Roadway Fatalities



New Jersey
1993 - 2002



Roadway Fatalities 1993-2002

Total number of roadway fatalities: 195 (17% of all fatal injuries)

91% were men and 9% were women

68% were white, non-Hispanic and 17% were black, non-Hispanic

12% were Hispanic or Latino

17% were foreign-born

78% were residents of New Jersey

80% worked for New Jersey employers

Age at death ranged from 17 to 77, average age was 41 years; 51 (26%) were 25 to 44 years old; 64% were under age 45

85% worked for wages or salary, 9% were self-employed

84% worked in the private sector, 16% were public employees

Majority of decedents were employed in the private industries of transportation and public utilities (68) and services (24); thirty-one were government employees

Highest number of victims of fatal highway incidents occurred in the occupations of transportation and material moving (101, 52%); seventy (36%) of the decedents were truck drivers

84% were driving a vehicle; 15% were riding in a vehicle but not operating it

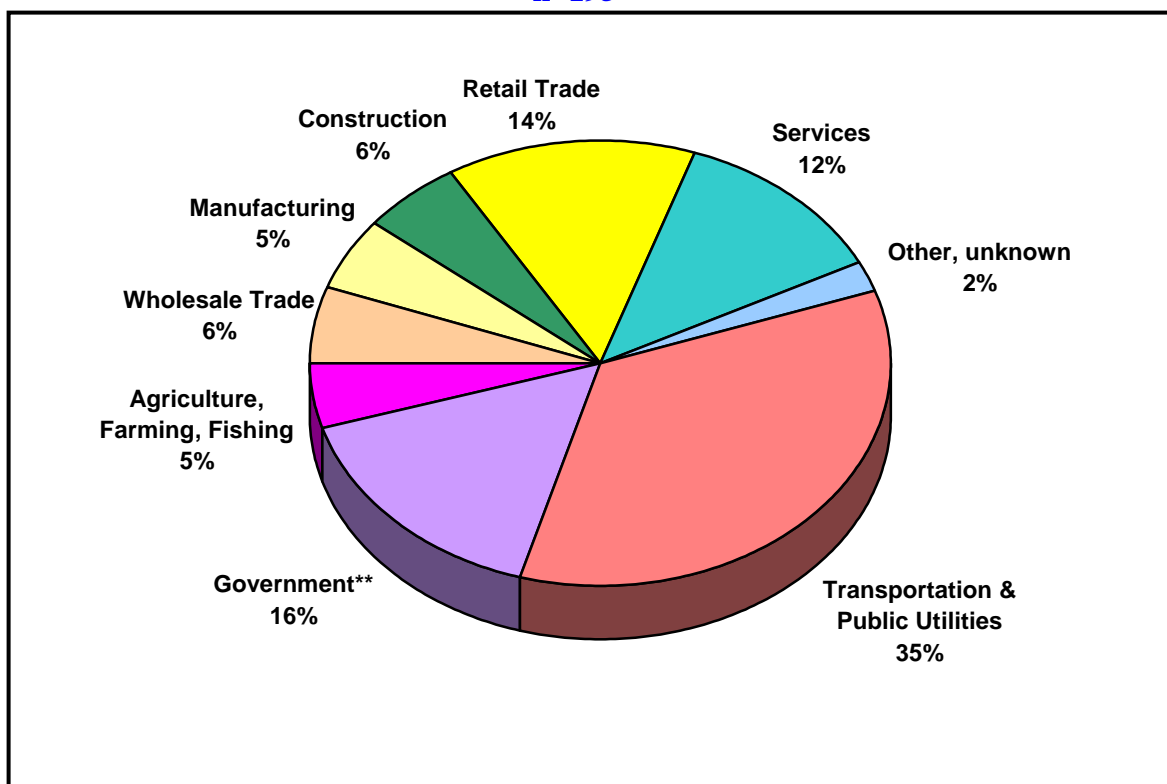
A roadway fatality occurred in each county; counties with highest numbers were Essex (19), Morris (18), and Bergen (16) Counties

Highest number of fatal roadway injuries occurred between noon and 2 p.m. (34, 17%)

ROADWAY FATALITIES – Industry

The majority of fatal roadway incidents occurred in the industry of transportation and public utilities (68, 35%). Trucking and warehousing industries employed 52 (27%) of the victims of roadway fatalities. Local passenger transit (13, 7%) included 7 workers employed by taxicab companies. Thirty-one were public employees.

FIGURE 14
Fatal Occupational Injuries Occurring on Roadways by Industry*
New Jersey, 1993 - 2002
n=195



*Based on the 1987 Standard Industrial Classification (SIC) Manual.

**Includes fatalities of seven workers employed by governmental organizations regardless of industry.

Note: percentages may not add to 100 due to rounding.

ROADWAY FATALITIES – Occupation

Workers employed in transportation and material moving occupations (101) were the most frequent victims of roadway fatalities. Occupational groups with the highest numbers of roadway fatalities included truck drivers (70), delivery sales workers (12), and taxi drivers and chauffeurs (11).

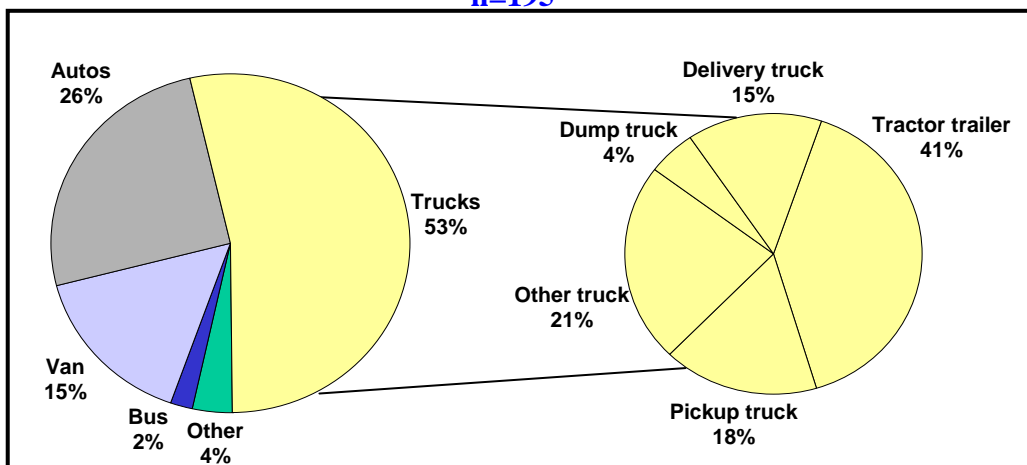
TABLE 19
Fatal Occupational Injuries Occurring on Roadways by Occupation*
New Jersey, 1993 - 2002
n=195

OCCUPATION*	NUMBER**	PERCENT
Operators, Fabricators, and Laborers	116	59
Transportation and material moving	101	
<i>Truck driver</i>	70	
<i>Taxicab drivers & chauffeurs</i>	11	
<i>Delivery sales</i>	12	
<i>Bus drivers</i>	6	
Handlers, equipment cleaners, helpers, & laborers	15	
<i>Garbage collectors</i>	8	
Technical, Sales, and Administrative Support	20	10
Sales	12	
Administrative support	5	
Service Occupations	19	10
Protective service	14	
<i>Police and police supervisors</i>	9	
Precision Production, Craft, and Repair	14	7
Construction trades	7	
Mechanics and repairers	4	
Managerial and Professional Specialties	12	6
Executive, administrative, and managerial	6	
Professional specialty	6	
Farming, Forestry, and Fishing	7	4
Military	6	3
Other, unknown	1	<1
*Based on the 1990 Occupational Classification System developed by the Bureau of the Census.		
**Subcategories may not total major categories. Not all subcategories are shown.		
Note: Percentages may not add to 100 due to rounding.		

ROADWAY FATALITIES – Source

In a transportation incident, the source of the injury is the vehicle in which the decedent was an occupant, regardless of the cause of the incident or which driver may have been at fault. Fifty-three percent of the roadway fatalities involved trucks, including 43 tractor-trailers or semi-trucks, 19 pickup trucks, and 16 delivery trucks.

FIGURE 15
Fatal Occupational Roadway Injuries by Source of Injury*
New Jersey, 1993 – 2002
n=195

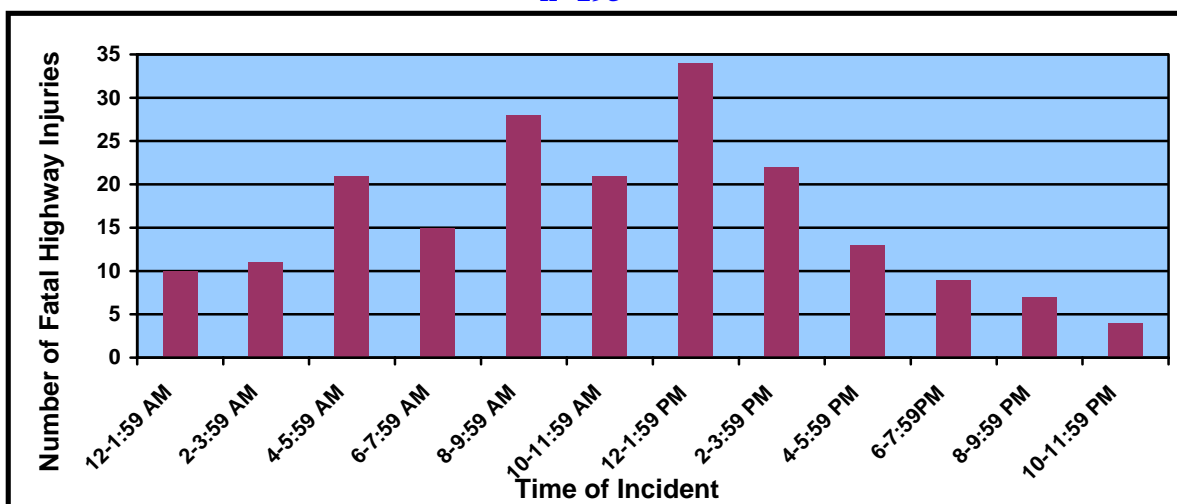


* Based on the 1992 BLS Occupational Injury and Illness Classification Structures.
Note: Percentages may not add to 100 due to rounding.

ROADWAY FATALITIES – Time of Incident

The highest number of roadway injuries occurred between noon and 2 p.m.

FIGURE 16
Fatal Occupational Roadway Injuries by Time of Incident*
New Jersey, 1993 – 2002
n=195



ROADWAY FATALITIES – Event or Exposure (**Manner in Which the Fatal Injury Occurred**)

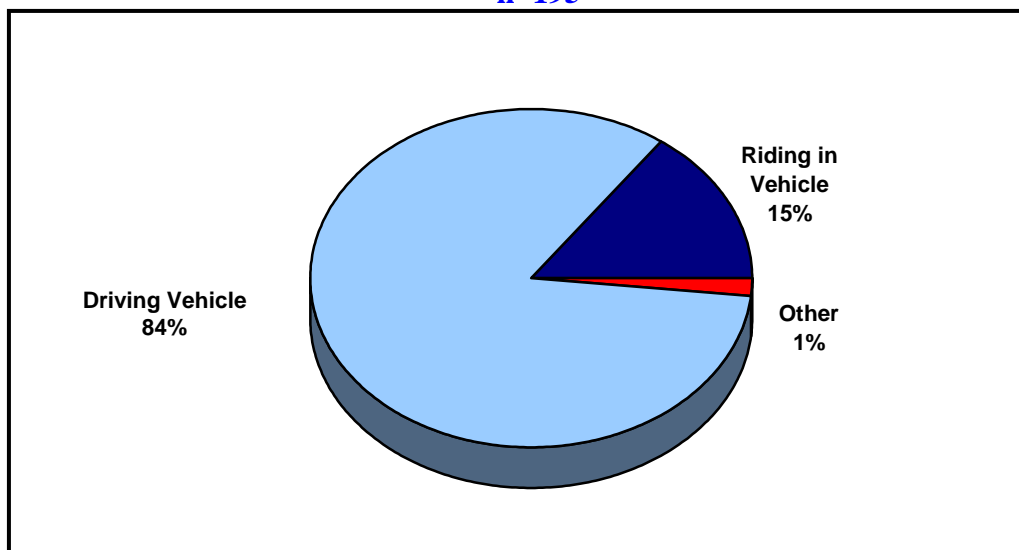
The majority of the roadway fatalities involved collisions of moving vehicles (105), compared with 24 non-collisions. In most of the collisions, vehicles collided when moving in opposite directions (head-on). In each roadway event, the decedent was an occupant in a vehicle, although not necessarily the driver.

TABLE 20
Fatal Occupational Injuries Occurring on Roadways by Event or Exposure*
New Jersey, 1993 - 2002
n=195

EVENT OR EXPOSURE*	NUMBER**	PERCENT
Collision Between Vehicles	105	54
Oncoming, vehicles moving in opposite directions	38	
At an intersection	22	
Moving in the same direction	21	
Between moving and standing vehicles		
in the road	13	
on side of the road	5	
Other collisions	6	
Struck Stationary Object	62	32
At side of the road	48	
In road	14	
Non-collision	24	12
Vehicle jackknifed	14	
Other non-collision	10	
Other roadway	4	2
*Based on the 1992 BLS Occupational Injury and Illness Classification Structure.		
**Subcategories may not total major categories. Not all subcategories are shown.		

ROADWAY FATALITIES – Activity of Worker

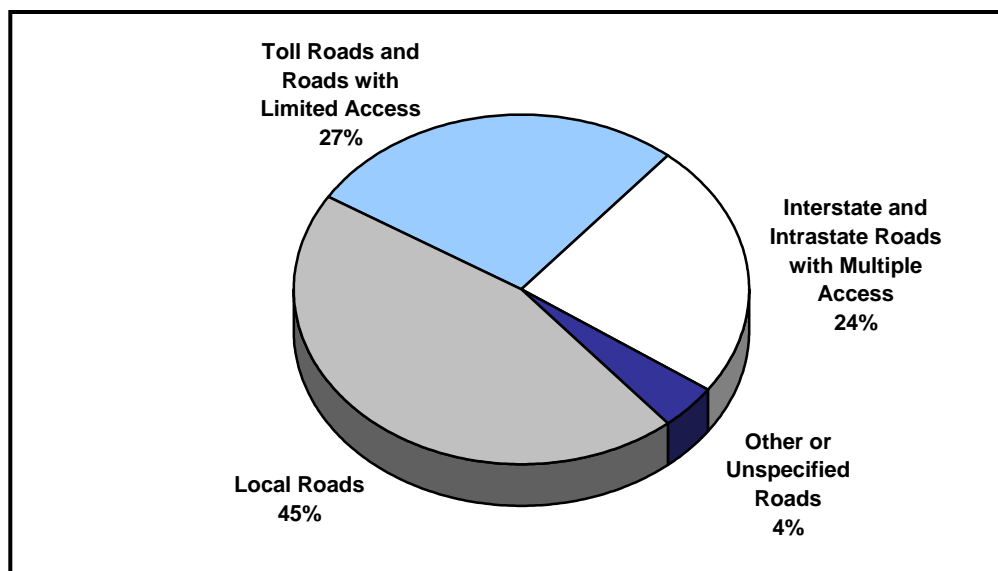
FIGURE 17
Fatal Occupational Injuries Occurring on Roadways by Activity of Worker*
New Jersey, 1993 - 2002
n=195



*Based on activity codes developed by the U.S. Department of Labor, Bureau of Labor Statistics.

ROADWAY FATALITIES – Location

FIGURE 18
Fatal Occupational Injuries Occurring on Roadways by Location*
New Jersey, 1993 - 2002
n=195



*Based on location codes developed by the U.S. Department of Labor, Bureau of Labor Statistics.

ROADWAY FATALITIES – Source and Secondary Source

TABLE 21
Fatal Occupational Injuries Caused by Roadway Collisions
by Source and Secondary Source*
New Jersey, 1993 - 2002
n=167

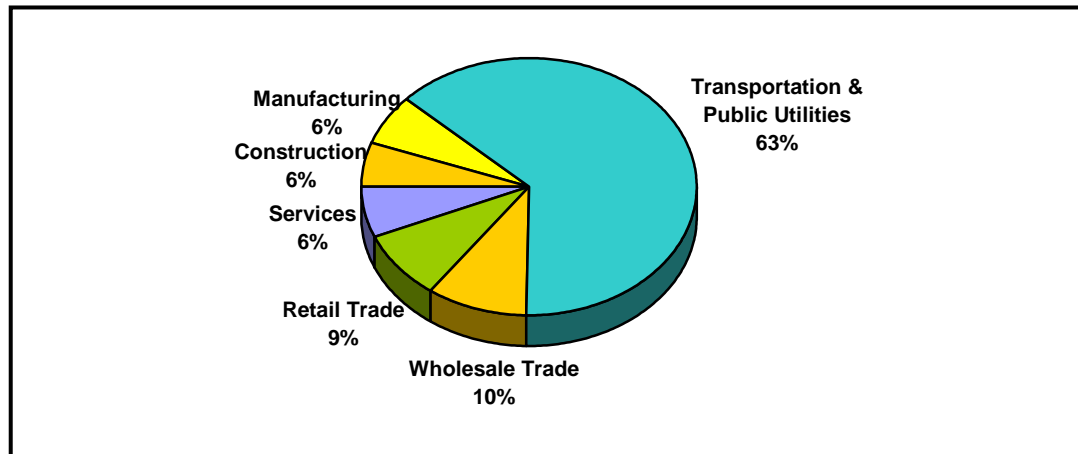
Vehicles Struck Vehicles						
n=105						
Worker Riding In	Number	Percent		Vehicle Collided With	Number	Percent
Truck	49	47		Truck	62	59
<i>Tractor trailer or semi</i>	17			<i>Tractor trailer or semi</i>	33	
<i>Pickup</i>	13			<i>Pickup</i>	8	
<i>Delivery</i>	11			<i>Dump</i>	7	
<i>Other truck</i>	8			<i>Delivery</i>	5	
Auto	32	31		<i>Other truck</i>	9	
Van	20	19		Auto	30	29
Other vehicle	4	4		Van	9	9
				Other vehicle	4	4
Vehicles Struck Stationery Object in Road or Side of Road						
n=62						
Worker Riding In	Number	Percent		Object Struck	Number	Percent
Truck	34	55		Structures	40	65
<i>Tractor trailer or semi</i>	21			<i>Poles or towers</i>	15	
<i>Pickup</i>	3			<i>Guard rails/road dividers</i>	16	
<i>Delivery truck</i>	4					
<i>Other truck</i>	6			<i>Bridges</i>	6	
Auto	17	27		<i>Other structures</i>	3	
Van	7	11		Trees	18	29
Bus	3	5		Other object	4	6
Other vehicle	1	2				
*Based on the 1992 BLS Occupational Injury and Illness Classification Structure.						
Note: Percentages may not add to 100 due to rounding						



TRUCK DRIVER FATALITIES – Industry

Truck drivers comprised 11% of all victims of work-related fatal injuries during the years 1993-2002. Seventy-five percent of the truck drivers died as a result of a transportation-related event, usually occurring on a roadway, and usually in a collision with another vehicle.

FIGURE 23
Fatal Occupational Injuries of Truck Drivers by Industry*
New Jersey, 1993 - 2002
n=126



*Based on the 1987 Standard Industrial Classification (SIC) Manual.
Includes fatalities of two workers employed by governmental organizations regardless of industry, one in construction and one in transportation & public utilities.

TRUCK DRIVER FATALITIES – Event or Exposure (Manner in Which the Fatal Injury Occurred)

TABLE 23
Fatal Occupational Injuries of Truck Drivers by Event or Exposure*
New Jersey, 1993 - 2002
n=126

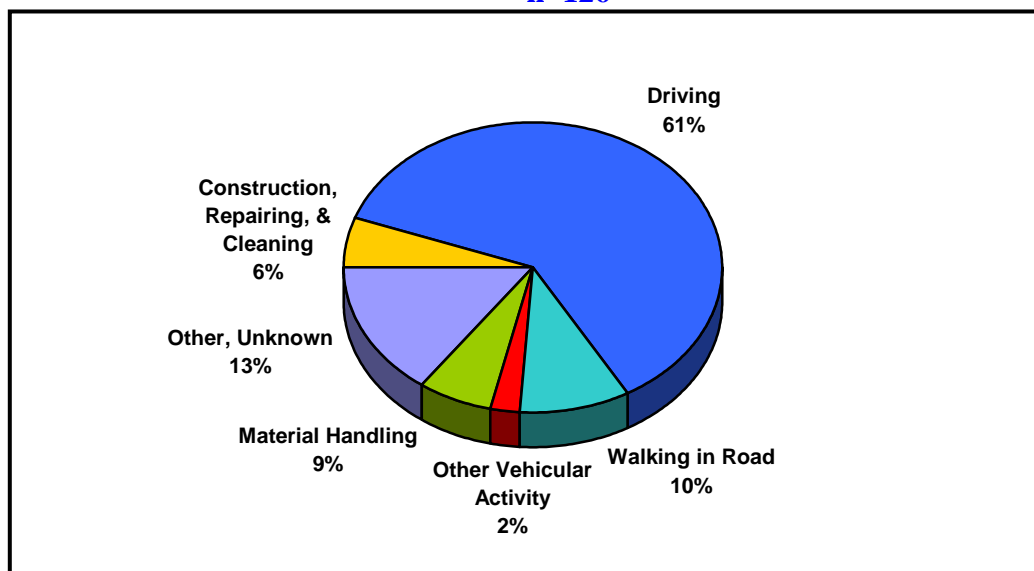
EVENT OR EXPOSURE*	NUMBER**	PERCENT
Transportation-Related Events	94	75
Roadway	70	
<i>Collision between vehicles</i>	34	
<i>Vehicle struck stationary object on road or side of road</i>	27	
<i>Non-collision</i>	9	
Non-roadway	5	
Worker struck by vehicle	18	
<i>In roadway or side of road</i>	11	
<i>Non-roadway</i>	7	
Contact with Objects and Equipment	18	14
Struck by object	13	
Caught in equipment or objects	5	
Assaults and Violent Acts	4	3
Homicides	3	
Exposure to Harmful Substances or Environments	6	5
Others	4	3

*Based on the 1992 BLS Occupational Injury and Illness Classification Structure.
**Categories may not total major categories. Not all subcategories are shown.

TRUCK DRIVER FATALITIES – Activity

Sixty-one percent of the truck drivers died as a result of injuries incurred while driving, usually a truck (52%).

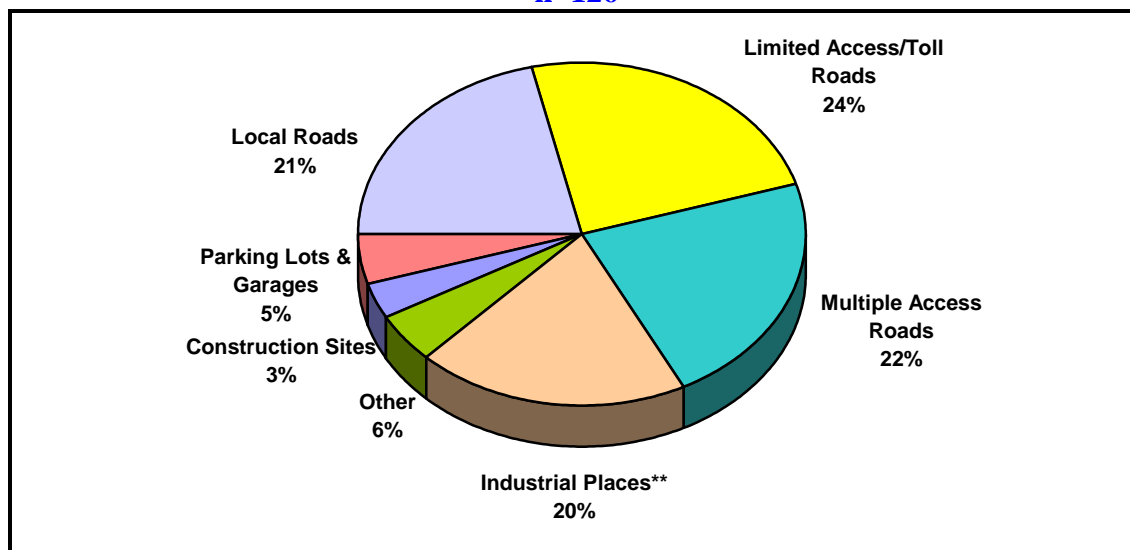
FIGURE 24
Fatal Occupational Injuries of Truck Drivers by Activity*
New Jersey, 1993 - 2002
n=126



*Based on activity codes developed by the U.S. Department of Labor, Bureau of Labor Statistics.
Note: Percentages may not add to 100 due to rounding.

TRUCK DRIVER FATALITIES – Location

FIGURE 25
Fatal Occupational Injuries of Truck Drivers by Location*
New Jersey, 1993 - 2002
n=126



*Based on location codes developed by the U.S. Department of Labor, Bureau of Labor Statistics.

**Excluding construction sites.

Note: Percentages may not add to 100 due to rounding.



PEDESTRIANS FATALLY INJURED WHILE WORKING

One hundred twenty-four workers were struck and killed by vehicles. Seventy-one were injured on roads and streets and 53 were struck in off-road areas. Ninety percent were men and their ages ranged from 19 to 79. Seventy-seven percent were employed by private companies. Fifty-one (41%) were struck by trucks and 43 (35%) by autos.

PEDESTRIAN FATALITIES – Source

The source of the fatal injury is the vehicle that struck the worker. Most of the on-road workers were struck by autos (36) or trucks (27). Trucks included 9 tractor-trailers and 4 dump trucks. The off-road pedestrians were most often killed when struck by trucks (24).

FIGURE 19A
Fatal Occupational Injuries of
Pedestrians Struck on Roads, or
Sides of Roads, by Source of Injury*
New Jersey, 1993 - 2002
n=71

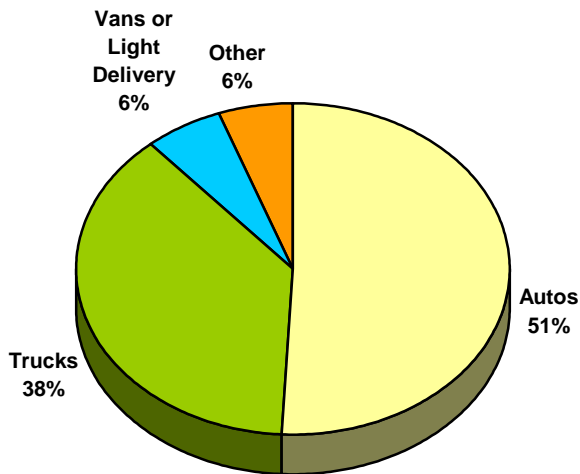
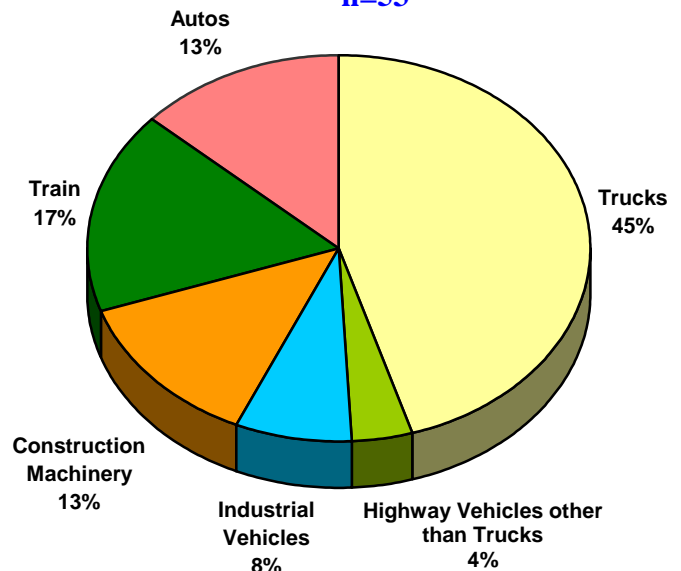


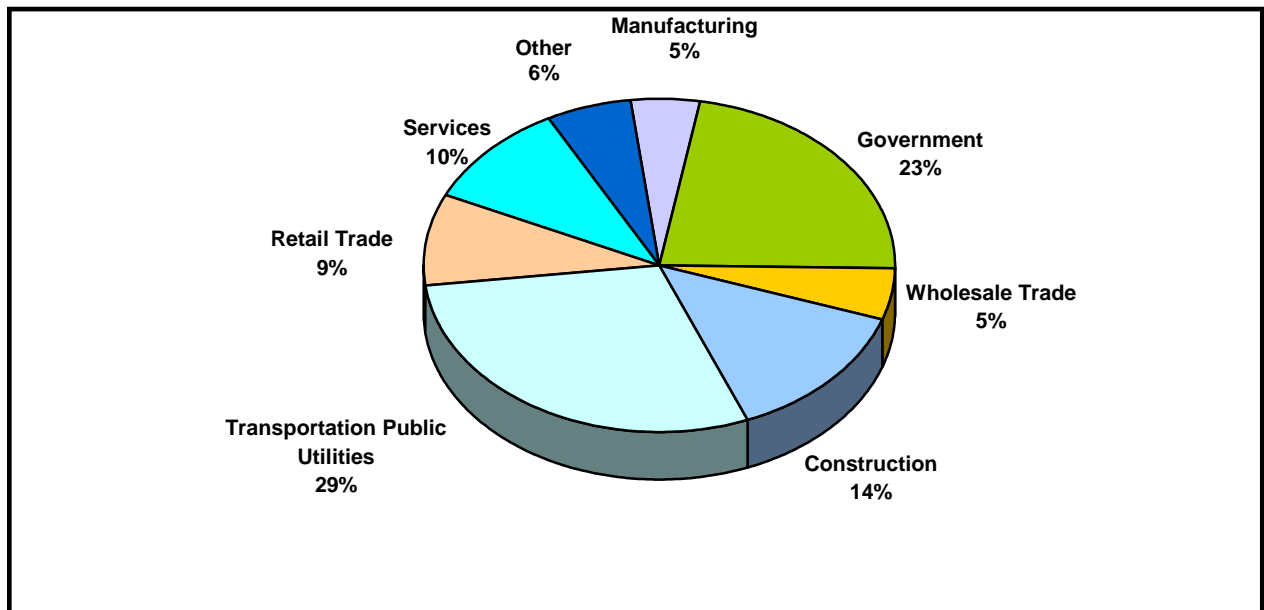
FIGURE 19B
Fatal Occupational Injuries of
Pedestrians Struck in an Off-Road
Area by Source of Injury*
New Jersey, 1993 - 2002
n=53



*Based on the 1992 BLS Occupational Injury and Illness Classification Structure.

PEDESTRIAN FATALITIES – Industry

FIGURE 20
Fatal Occupational Injuries of Pedestrians on Roads, Sides of Roads, or Off-Road
by Industry* - New Jersey, 1993 - 2002
n=124



*Based on the 1987 Standard Industrial Classification (SIC) Manual.

Note: Percentages may not add to 100 due to rounding.

PEDESTRIAN FATALITIES – Occupation

TABLE 22
Fatal Occupational Injuries of Pedestrians by Occupation* - New Jersey, 1993 - 2002
n=124

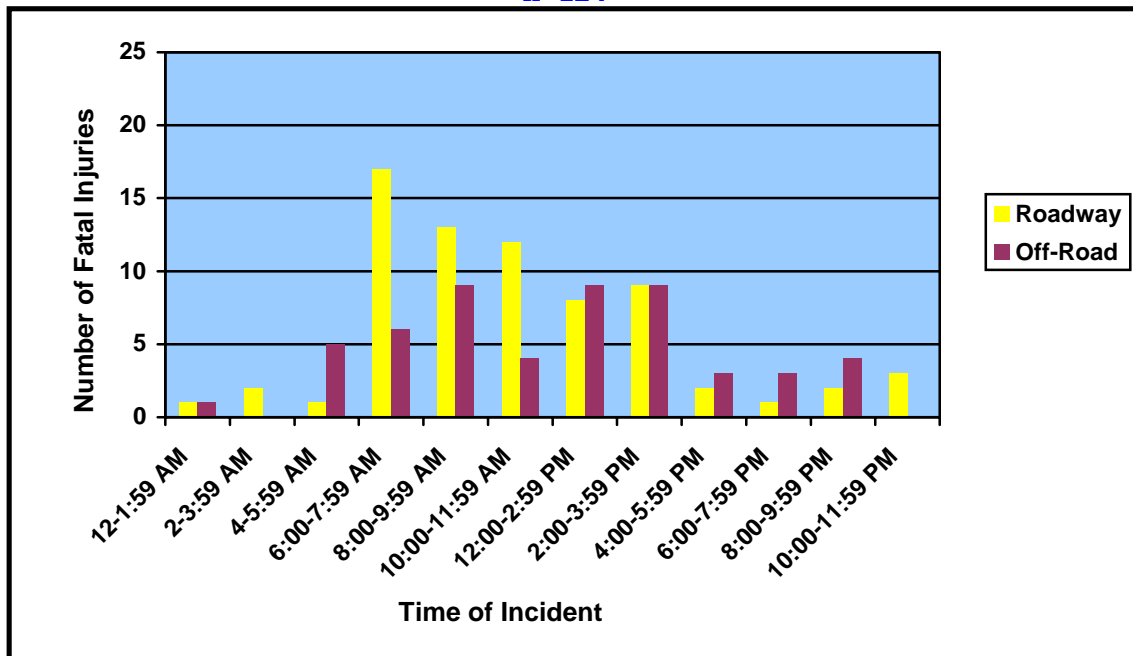
OCCUPATION*	NUMBER**	PERCENT
Operators, Fabricators, and Laborers	71	57
Transportation and material moving	27	
<i>Truck drivers</i>	18	
<i>Taxi drivers</i>	3	
Handlers, equipment cleaners, helpers and laborers	43	
<i>Construction & non-construction laborers</i>	27	
<i>Garbage collectors</i>	12	
Service Occupations	18	15
Crossing guards	11	
Precision Production, Craft, and Repair	16	13
Mechanics and repairers	9	
Technical, Sales, and Administrative Support	8	6
Managerial and Professional Specialty	6	5
Farming, Forestry, and Fishing	5	4

*Based on the 1990 Occupational Classification System developed by the Bureau of the Census.
** Subcategories may not total major categories. Not all subcategories are shown.

PEDESTRIAN FATALITIES – Time of Incident

The highest number of fatal roadway pedestrian injuries occurred between 6 a.m. and noon (42, 59%). The highest number of fatal off-road pedestrian injuries occurred between noon and 4 p.m.

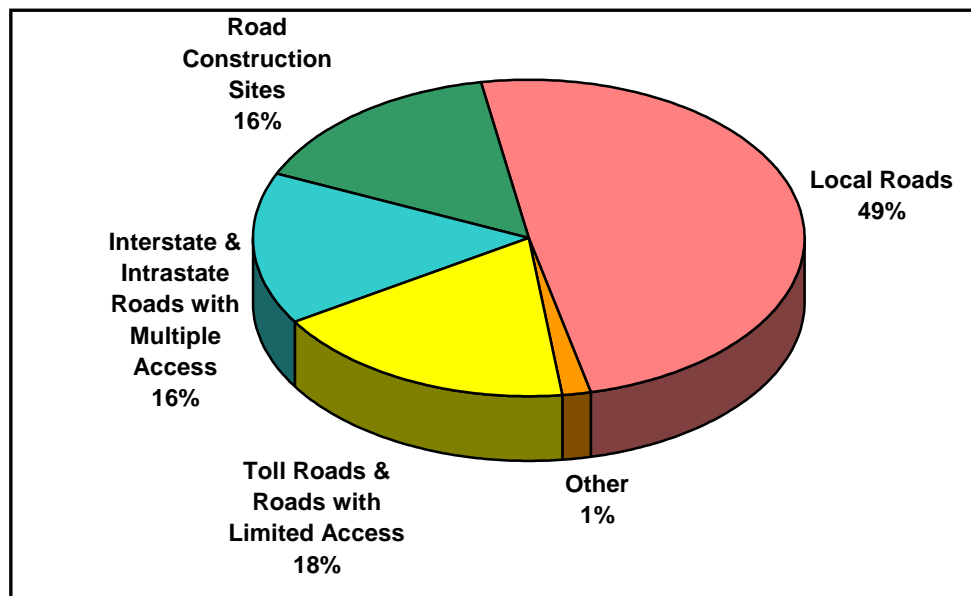
FIGURE 21
Fatal Occupational Injuries of Pedestrians on Roads or Sides of Roads, and Off-Road
by Time of Incident
New Jersey, 1993 - 2002
n=124



PEDESTRIAN FATALITIES – Location of Incident

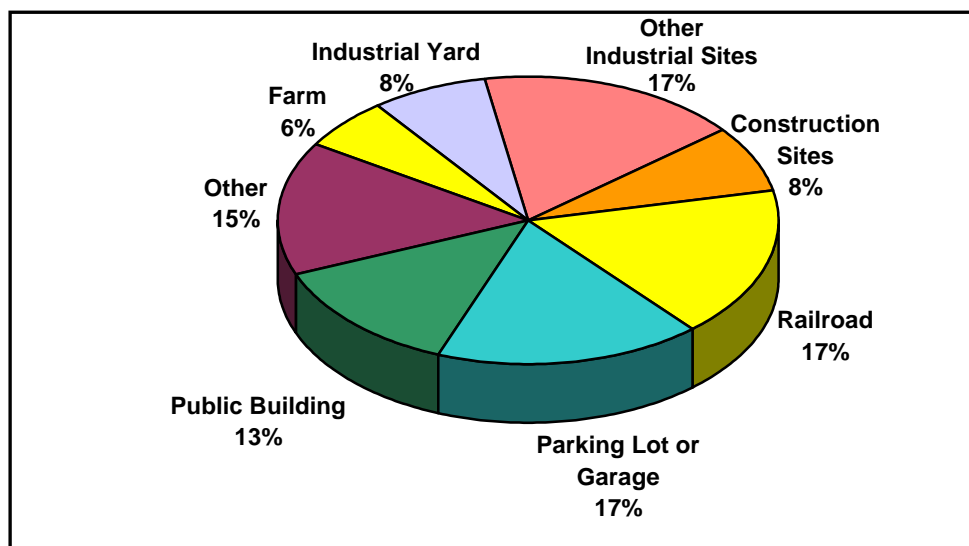
Most pedestrians were injured on local roads or streets (35, 49%) while off-road pedestrians were injured in more diverse locations.

FIGURE 22A
Fatal Occupational Injuries of Pedestrians on Roads or Sides of Roads by Location*
New Jersey, 1993 - 2002
n=71



*Based on location codes developed by the U.S. Department of Labor, Bureau of Labor Statistics.

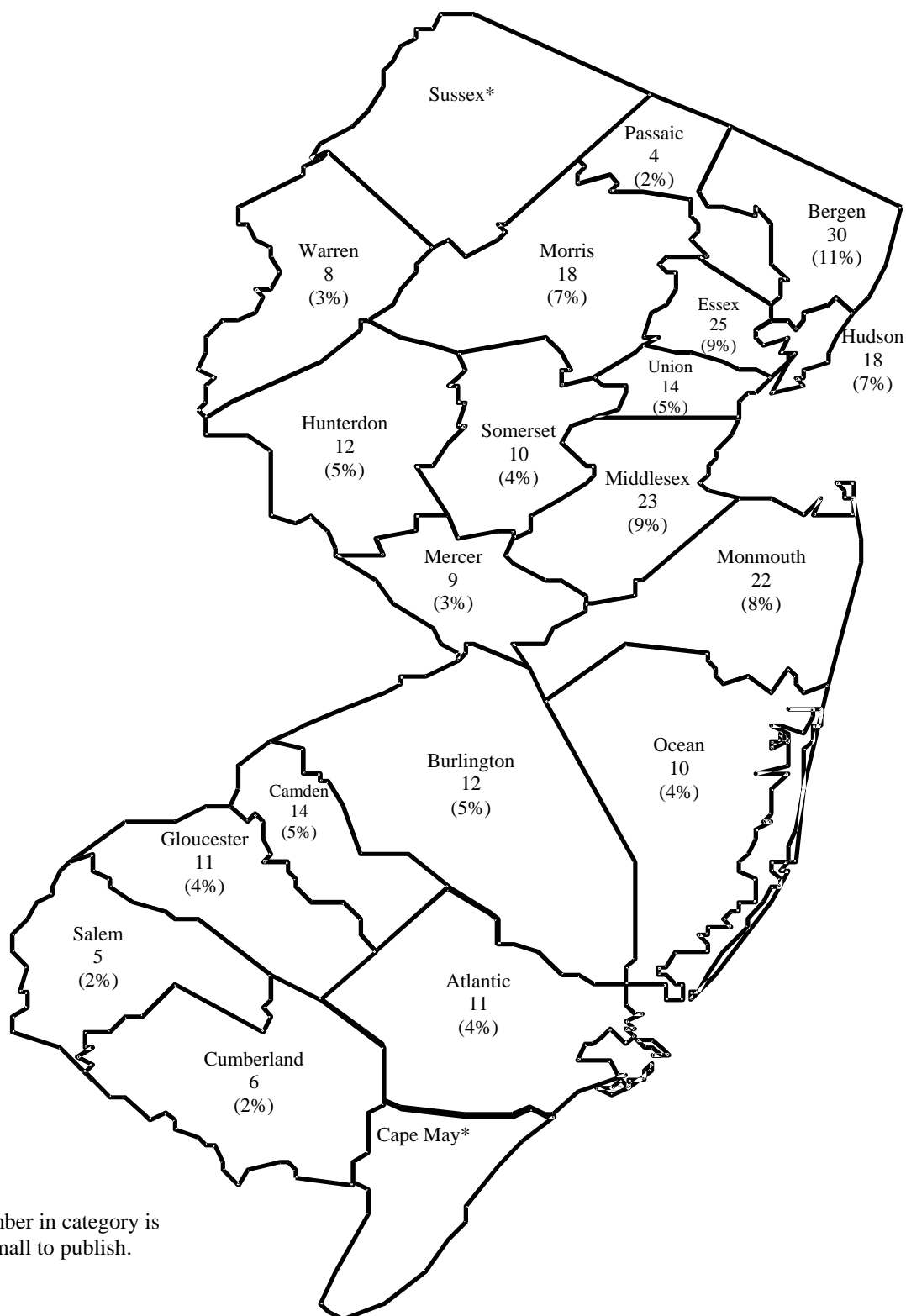
FIGURE 22B
Fatal Occupational Injuries of Pedestrians Off-Road by Location*
New Jersey, 1993 - 2002
n=53



*Based on location codes developed by the U.S. Department of Labor, Bureau of Labor Statistics.

Note: Percentage may not add to 100 due to rounding.

FATAL OCCUPATIONAL ROADWAY INJURIES BY COUNTY,
INCLUDING PEDESTRIANS
NEW JERSEY, 1993-2002
n=266



*Number in category is too small to publish.

Section 3

MOST FREQUENT FATAL OCCUPATIONAL INJURIES

Homicides

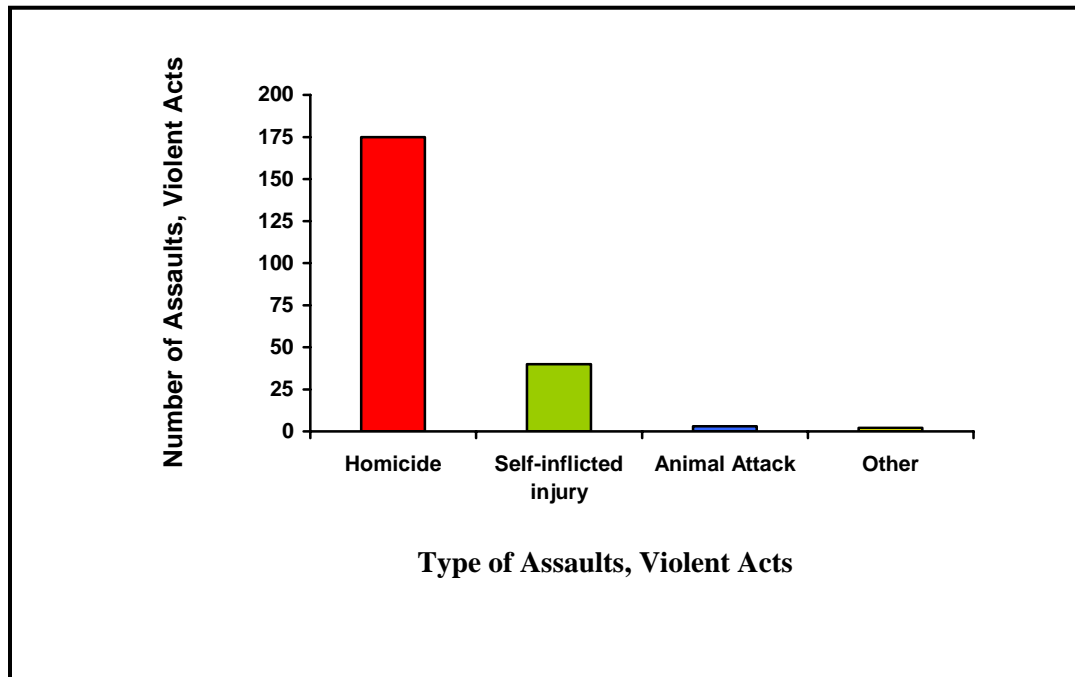


New Jersey
1993 - 2002

ASSAULTS AND VIOLENT ACTS

Assaults and violent acts, including homicides, self-inflicted injuries, and fatal injuries that were not specified to have been the result of homicide or suicide, were responsible for 220 (19%) of the 1,160 workers' deaths. One hundred seventy-five workers died as a result of homicides, 15% of all fatal injuries.

FIGURE 26
Fatal Occupational Injuries Due to Assaults and Violent Acts*
New Jersey, 1993 - 2002
n=220



* Based on the 1992 BLS Occupational Injury and Illness Classification Structure.



Homicides 1993-2002

Total number of homicides: 175, 15% of all fatal injuries

62% of the victims were assaulted by shooting and 21% by stabbing

84% were men and 16% were women

50% were white, non-Hispanic, 18% were black, non-Hispanic, and 15% were of Asian descent

15% were Hispanic or Latino

41% were foreign-born

93% were residents of New Jersey

99% worked for New Jersey employers

Age at death ranged from 16 to 76, average age was 41 years; 59% were under the age of 45

87% worked for wages or salary, 12% were self-employed

83% worked in the private sector, 17% were public employees

The majority of homicide victims were employed in the retail trade industry (78), were government employees (29), or the services industry (24)

The highest number of homicide victims were employed in sales occupations (38), executive, administrative and managerial (31), and transportation and material moving (25)

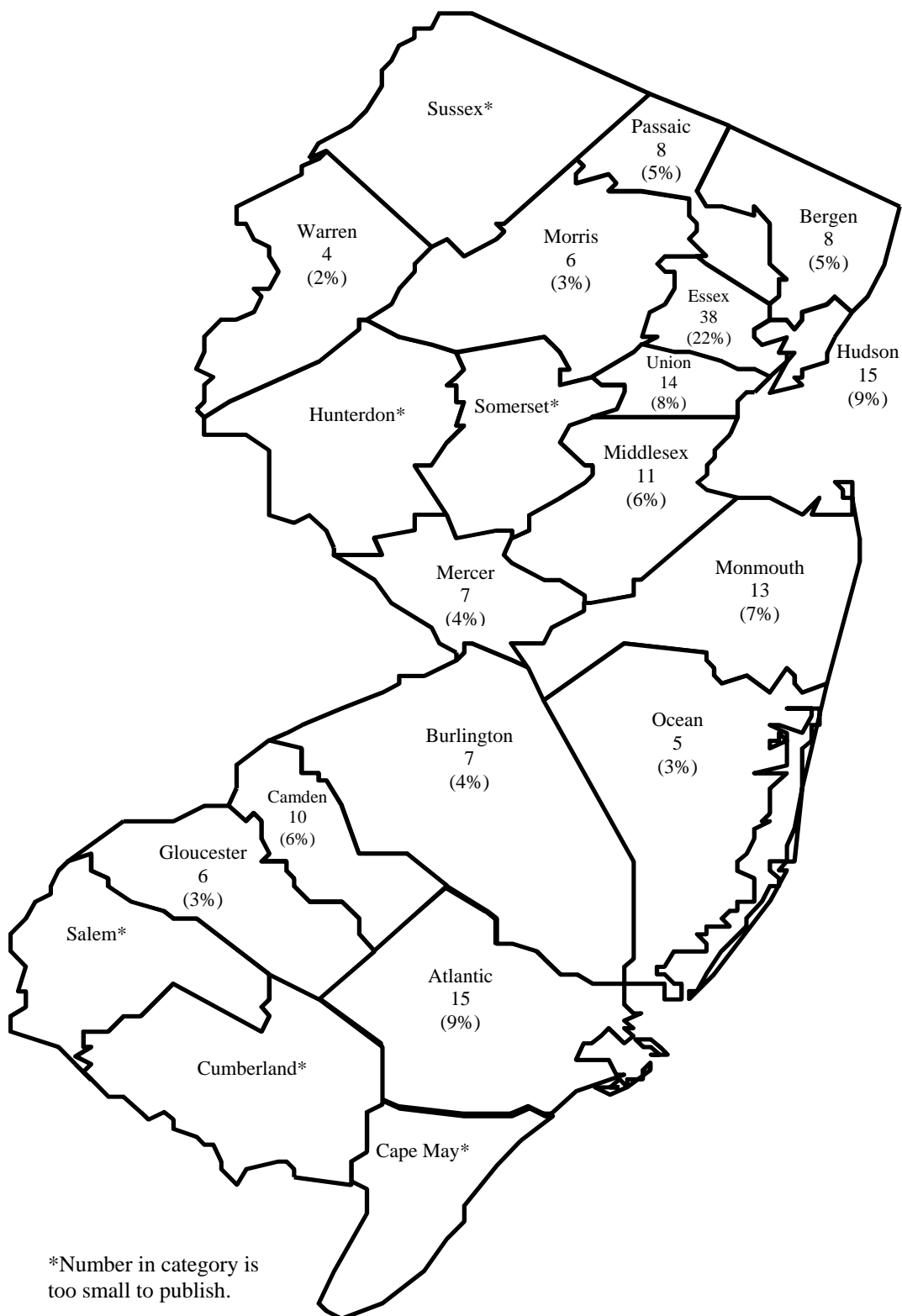
38% were tending a retail establishment when assaulted

A work-related homicide occurred in each county; counties with the highest numbers were Essex (38), Hudson (15), and Atlantic (15) Counties.

The greatest number of homicides occurred between 8 p.m. and midnight (44)

FATAL OCCUPATIONAL HOMICIDES BY COUNTY
NEW JERSEY, 1993-2002

n=175



*Number in category is too small to publish.

HOMICIDES – Selected Characteristics

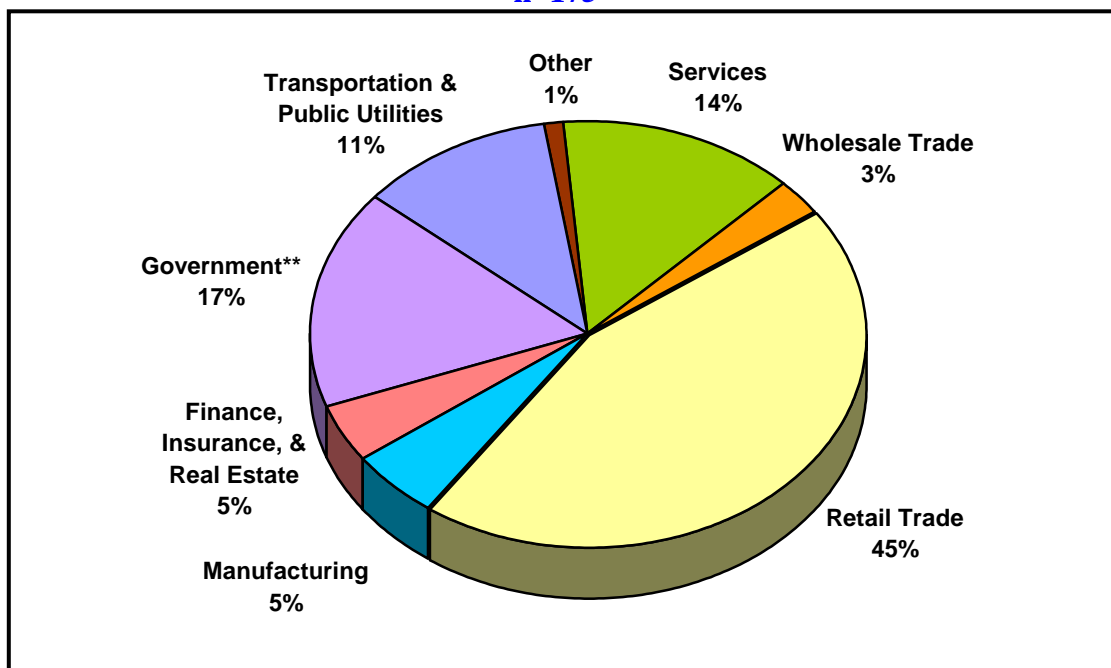
TABLE 24
Work-Related Homicides by Selected Characteristics
New Jersey, 1993 - 2000
n=175

CHARACTERISTIC	NUMBER	PERCENT
Perpetrator of Homicide		
Robber	89	51
Co-worker, employer, employee	19	11
Spouse or boyfriend	12	7
Prisoner, ex-prisoner, person arrested	12	7
Other, unknown	43	25
Worker Activity*		
Tending a retail establishment	66	38
Protective service	25	14
<i>Apprehending or breaking up a fight</i>	14	
Transportation-related activity	20	11
<i>Driving a vehicle</i>	15	
Managerial or office work	15	9
Construction activities	8	5
Health care	3	2
Other or unknown activity	38	22
Location of Homicide**		
Public building	92	53
<i>Convenience and other stores</i>	50	
<i>Restaurant</i>	23	
Roadway	28	16
Parking lot or garage	20	11
Home	19	11
Industrial place***	8	5
Correction facility	4	2
Other or unknown locations	4	2
<p>*Based on activity codes developed by the Bureau of Labor Statistics.</p> <p>**Based on location codes developed by the Bureau of Labor Statistics.</p> <p>***Includes construction sites</p> <p>Note: Percentages may not add to 100 due to rounding.</p>		

HOMICIDES – Industry

Almost half of the victims of work-related homicides worked in retail trade (78), including eating and drinking places (28), gas stations (12), food stores (12), liquor stores (5), and apparel stores (5). The services industry employed 24 of the victims, including 4 in hotels and other lodging. Of the 20 decedents employed in the transportation and public utilities industry, 15 were employed by taxicab companies. Government included 14 police officers and 4 employees of correctional facilities.

FIGURE 27
Work-Related Homicides by Industry*
New Jersey, 1993 - 2002
n=175



*Based on the 1987 Standard Industrial Classification (SIC) Manual

**Includes fatalities of two workers employed by governmental organizations regardless of industry.

Note: Percentages may not add to 100 due to rounding.

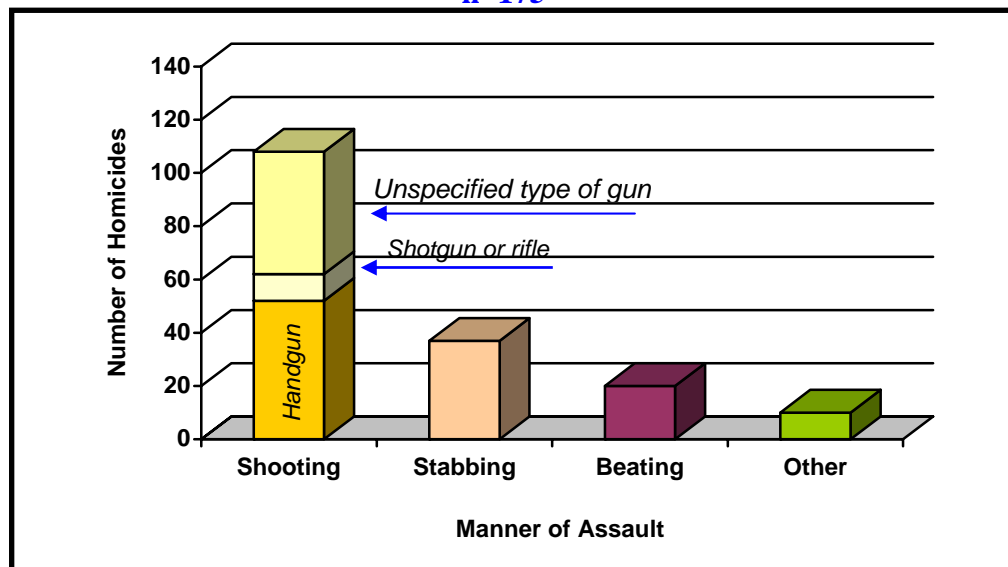
HOMICIDES – Occupation

TABLE 25
Work-Related Homicides by Occupation*
New Jersey, 1993 - 2002
n=175

OCCUPATION*	NUMBER**	PERCENT
Operators, Fabricators, and Laborers	50	29
Transportation and material moving	25	
<i>Taxi drivers</i>	17	
Handlers, equipment cleaners, helpers and laborers	23	
<i>Gas station attendants</i>	12	
Technical, Sales, and Administrative Support	42	24
Sales occupations	38	
Administrative support	3	
Managerial and Professional Specialties	39	22
Executive, administrative, and managerial	31	
<i>Managers food serving</i>	19	
Service Occupations	38	22
Protective service	24	
<i>Police</i>	15	
<i>Correction officers</i>	4	
<i>Guards</i>	4	
Service occupations other than protective	14	
<i>Janitors</i>	5	
Precision Production, Craft, and Repair	5	3
Other or Unknown	1	<1
*Based on the 1990 Occupational Classification System developed by the Bureau of the Census.		
**Subcategories may not total major categories. Not all subcategories are shown.		
Note: Percentages may not add to 100 due to rounding.		

HOMICIDES – Event or Exposure

FIGURE 28
Work-Related Homicides by Manner of Assault*
New Jersey, 1993 - 2002
n=175

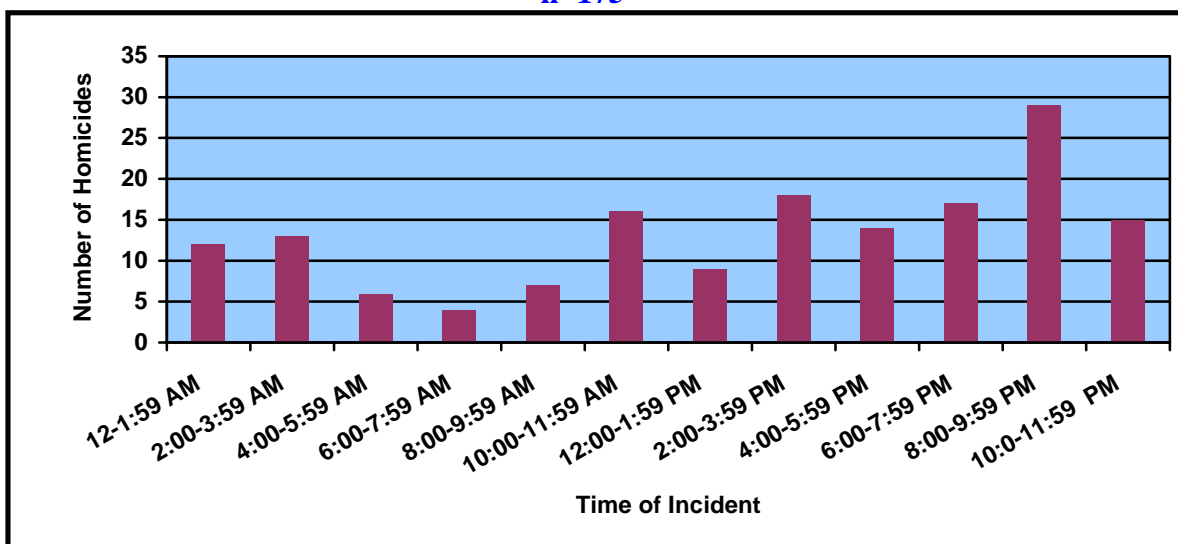


*Based on the 1992 BLS Occupational Injury and Illness Classification Structures

HOMICIDES – Time of Incident

Forty-one percent of the homicides occurred between 6 p.m. and midnight, with a peak between 8 and 10 p.m.

FIGURE 29
Work-Related Homicides by Time of Incident*
New Jersey, 1993 - 2002
n=175



*The time of 15 of the homicides is unknown. Those incidents are not included in this graph.

Section 3

MOST FREQUENT FATAL OCCUPATIONAL INJURIES

Falls to Lower Levels



New Jersey
1993 - 2002



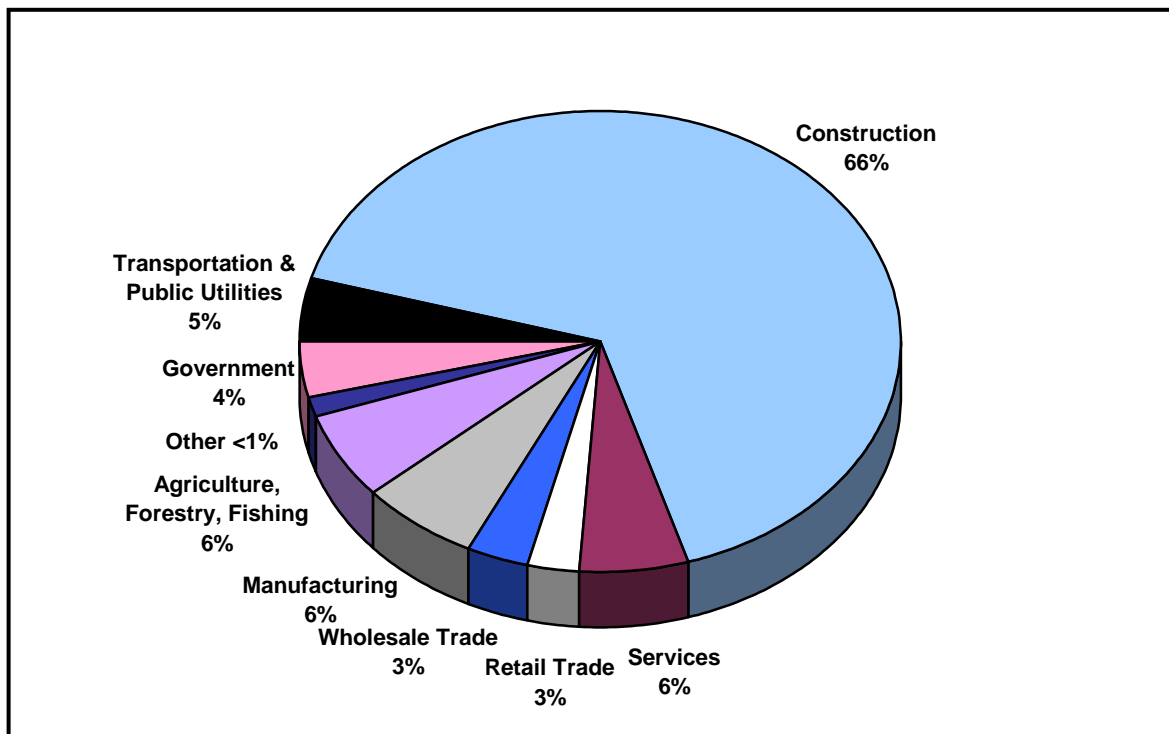
Falls to Lower Levels 1993-2002

- Total number of fatal falls: 181, 16% of all fatal injuries
- Total number of fatal falls to lower levels: 175, 15% of all fatal injuries
- 99% were men
- 62% were white, non-Hispanic and 12% were black, non-Hispanic
- 23% were Hispanic or Latino
- 38% were foreign-born
- 89% were residents of New Jersey
- 94% worked for New Jersey employers
- Age at death ranged from 17 to 89; 30% were between 35 and 44 years of age, 56% were younger than 45 years, and 22% were 55 years of age or older
- 145 worked for wages or salary, 28 were self-employed
- 168 worked in the private sector, 7 were public employees
- The majority of victims of fatal falls to lower levels were employed in the construction industry (116, 66%)
- The highest number of fatal falls to lower levels occurred in the occupations of construction trades (80, 46%) or helpers, equipment cleaners, fabricators, and laborers (49, 28%)
- 64% of the decedents were engaged in construction activities when they fell
- 91% of the fatal falls to lower levels occurred between 7 a.m. and 5 p.m., with a peak time of 10 a.m. to noon
- The percent of fatal injuries by company size was: 1-10 employees, 53%; over 100 employees, 15%

FALLS TO LOWER LEVELS – Industry

The majority of fatal falls to lower levels occurred in the construction industry.

FIGURE 30
Fatal Occupational Falls to Lower Levels by Industry*
New Jersey, 1993 - 2002
n=175



*Based on the 1987 Standard Industrial Classification (SIC) Manual.
Percentages may not add to 100 due to rounding.

FALLS TO LOWER LEVELS – Occupation

TABLE 26
Fatal Work-Related Falls to Lower Levels by Occupation*
New Jersey, 1993 - 2002
n=175

OCCUPATION*	NUMBER**	PERCENT
Precision Production, Craft, and Repair	95	54
Construction trades	80	
<i>Structural metal workers</i>	<i>16</i>	
<i>Construction supervisors</i>	<i>16</i>	
<i>Carpenter and apprentices</i>	<i>14</i>	
<i>Roofers</i>	<i>14</i>	
<i>Painters</i>	<i>7</i>	
Mechanics and repairers	13	
Operators, Fabricators, and Laborers	49	28
Handlers, equipment cleaners, helpers, and laborers	41	
<i>Construction laborers</i>	<i>30</i>	
<i>Laborers, except construction</i>	<i>8</i>	
Farming, Forestry, and Fishing	11	6
Groundskeepers and gardeners except farm	10	
Service Occupations	9	5
Maids, janitors, and cleaners, including supervisors	7	
Managerial and Professional Specialty	6	3
Technical, Sales, and Administrative Support	5	3
*Based on the 1990 Occupational Classification System developed by the Bureau of the Census. **Subcategories may not total major categories. Not all subcategories are shown. Note: percentages may not add to 100 due to rounding.		

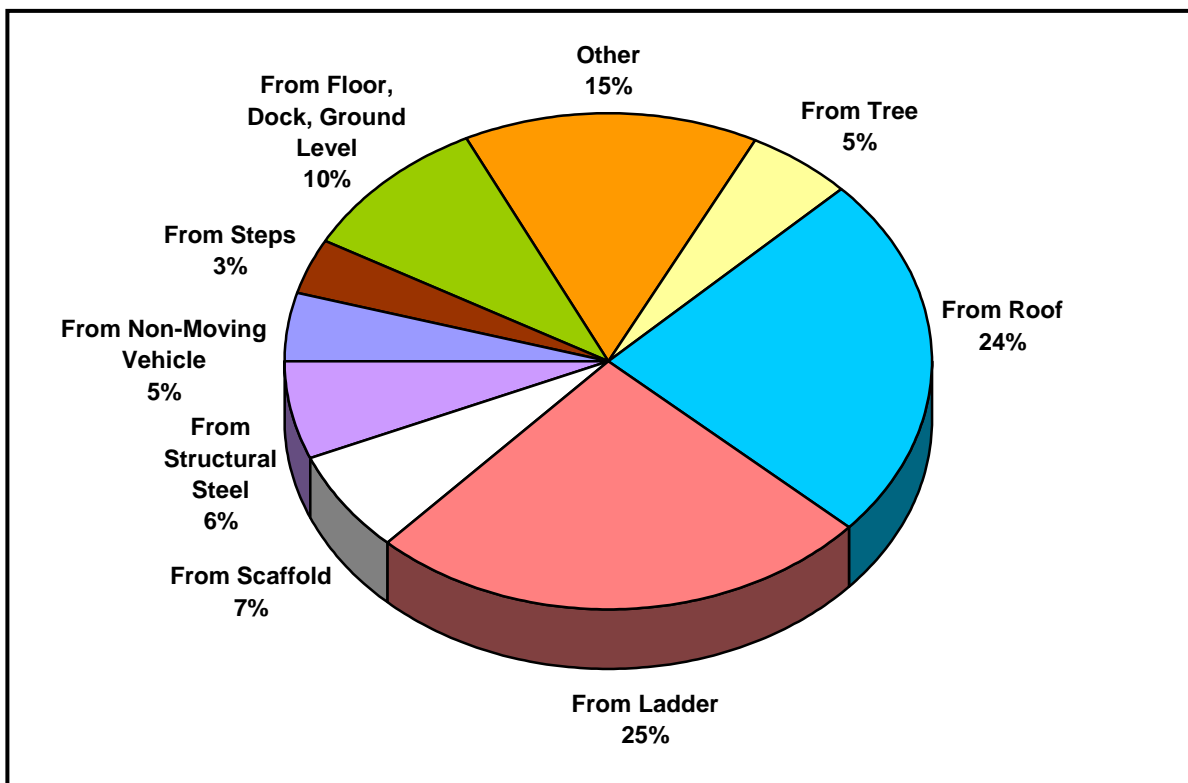
FALLS TO LOWER LEVELS – Event or Exposure (Manner in Which the Fatal Injury Occurred)

The most common types of fatal fall were from ladders (44, 25%) and falls from a roof (42, 24%). Falls from ladders occurred most often while working on movable ladders (34, 68%) but the type of ladder is unknown for 9 (20%) of the incidents. Most of the workers who fell were employed in the construction industry (33, 75%), frequently by special trade contractors (20, 45%). Thirty (68%) were employed in construction trades or as construction laborers.

Falls from roofs included 8 falls through a roof surface, 7 through a skylight, and 20 from a roof edge. Workers who fell from roofs were mostly employed in the construction industry (33, 79%) by special trade contractors, especially by roofing, siding, and sheet metal contractors (15, 36%). Their occupations were roofers (9, 21%), structural metal workers (7, 17%), and construction laborers (8, 19%).

Falls from a floor, dock, or ground surface (17, 10%) included 13 falls through a floor opening or through a floor surface.

FIGURE 31
Fatal Occupational Falls to Lower Levels by Event or Exposure*
New Jersey, 1993 - 2002
n=175



*Based on the 1992 BLS Occupational Injury and Illness Classification Structures.

FALLS TO LOWER LEVELS – Source and Secondary Source

Ninety-two percent (161) of the fatal injuries were caused by the impact of the falling worker with a floor, walkway, or ground surface. Falls to floors of buildings (57) accounted for 33% of the fatal falls. Half of the fatal injuries were caused by the worker falling from a structure or surface, most often from a roof (33). Twenty-five percent of the fatalities were caused by falls from ladders.

TABLE 27
Fatal Occupational Falls to Lower Levels by Source* and Secondary Source*
New Jersey, 1993 - 2002
n=175

THE WORKER FELL FROM:

SECONDARY SOURCE*	NUMBER**	PERCENT
Structures and Surfaces	87	50
Structural Elements	51	
<i>Roofs</i>	<i>31</i>	
<i>Skylights</i>	<i>8</i>	
<i>Other structural elements</i>	<i>10</i>	
Floors, Walkways, and Ground Surfaces	18	
<i>Floors</i>	<i>13</i>	
<i>Steps</i>	<i>4</i>	
Structures	18	
<i>Scaffolds and staging</i>	<i>13</i>	
Tools, Instruments, and Equipment	45	26
<i>Ladders</i>	<i>44</i>	
Parts and Materials	8	5
Trees	9	5
Machinery	11	6
<i>Elevators</i>	<i>6</i>	
Non-Moving Vehicles	10	6
<i>Industrial vehicles</i>	<i>6</i>	
Other and Unknown	5	3

THE WORKER FELL TO:

SOURCE*	NUMBER**	PERCENT
Floors, Walkways, and Ground Surfaces	161	94
Floors	70	
<i>Floor of building</i>	<i>57</i>	
<i>Floor of elevator</i>	<i>3</i>	
Ground	45	
<i>Sidewalks, paths, outdoor walkways</i>	<i>27</i>	
<i>Street, road</i>	<i>6</i>	
Parts and Materials	4	2
Machinery	3	2
Other and Unknown	3	2

*Based on the 1992 BLS Occupational Injury and Illness Classification Structure.

**Subcategories may not total major categories. Not all subcategories are shown.

Note: Percentages may not add to 100 due to rounding.